

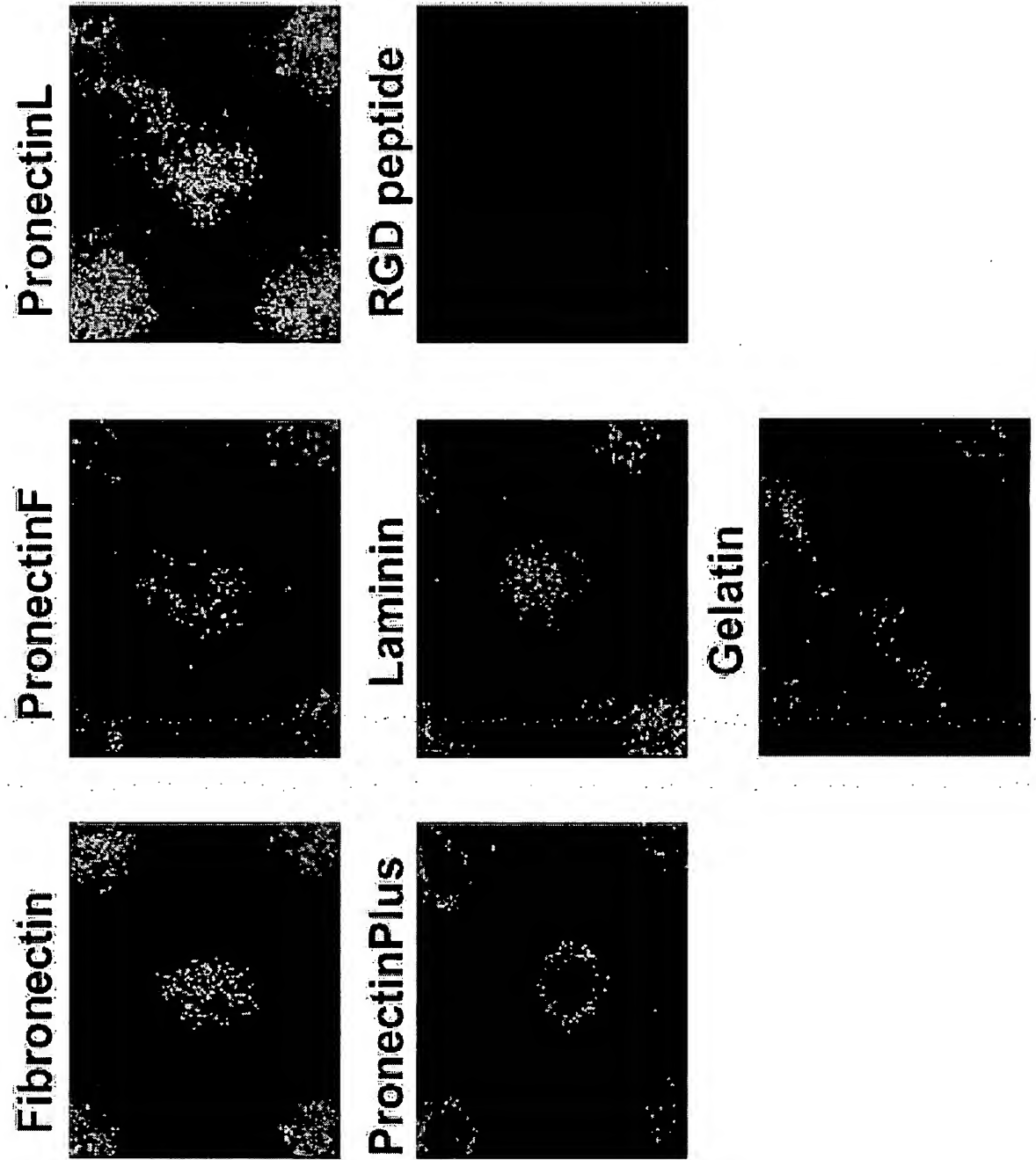
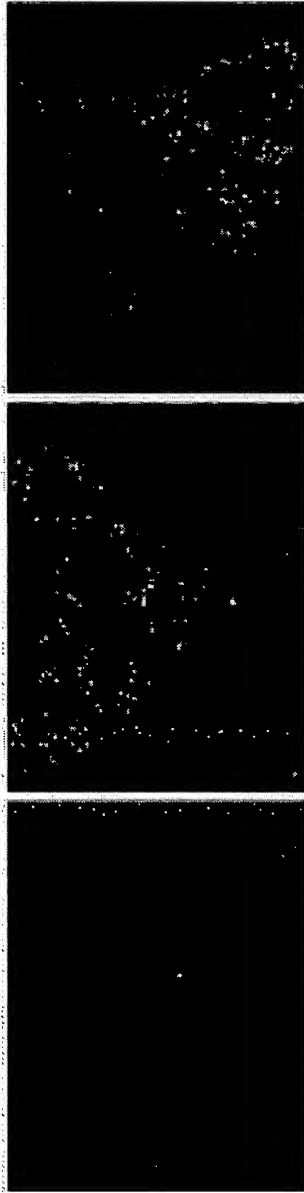
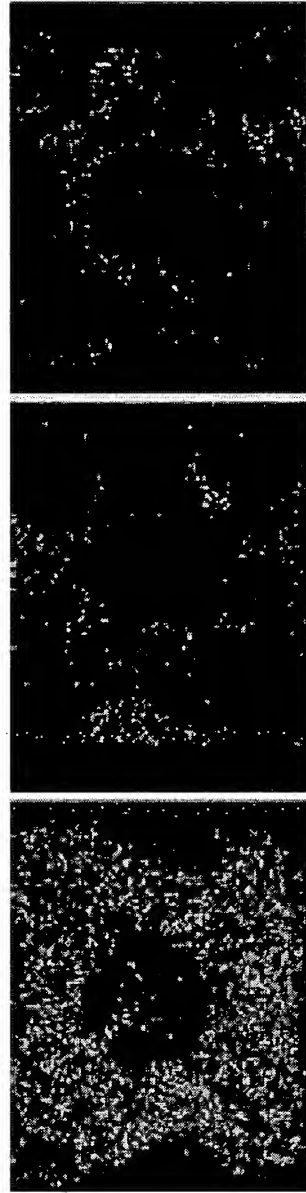
FIG. 1

FIG. 2

Fibronectin (43kDa fragment)



Fibronectin (72kDa fragment)



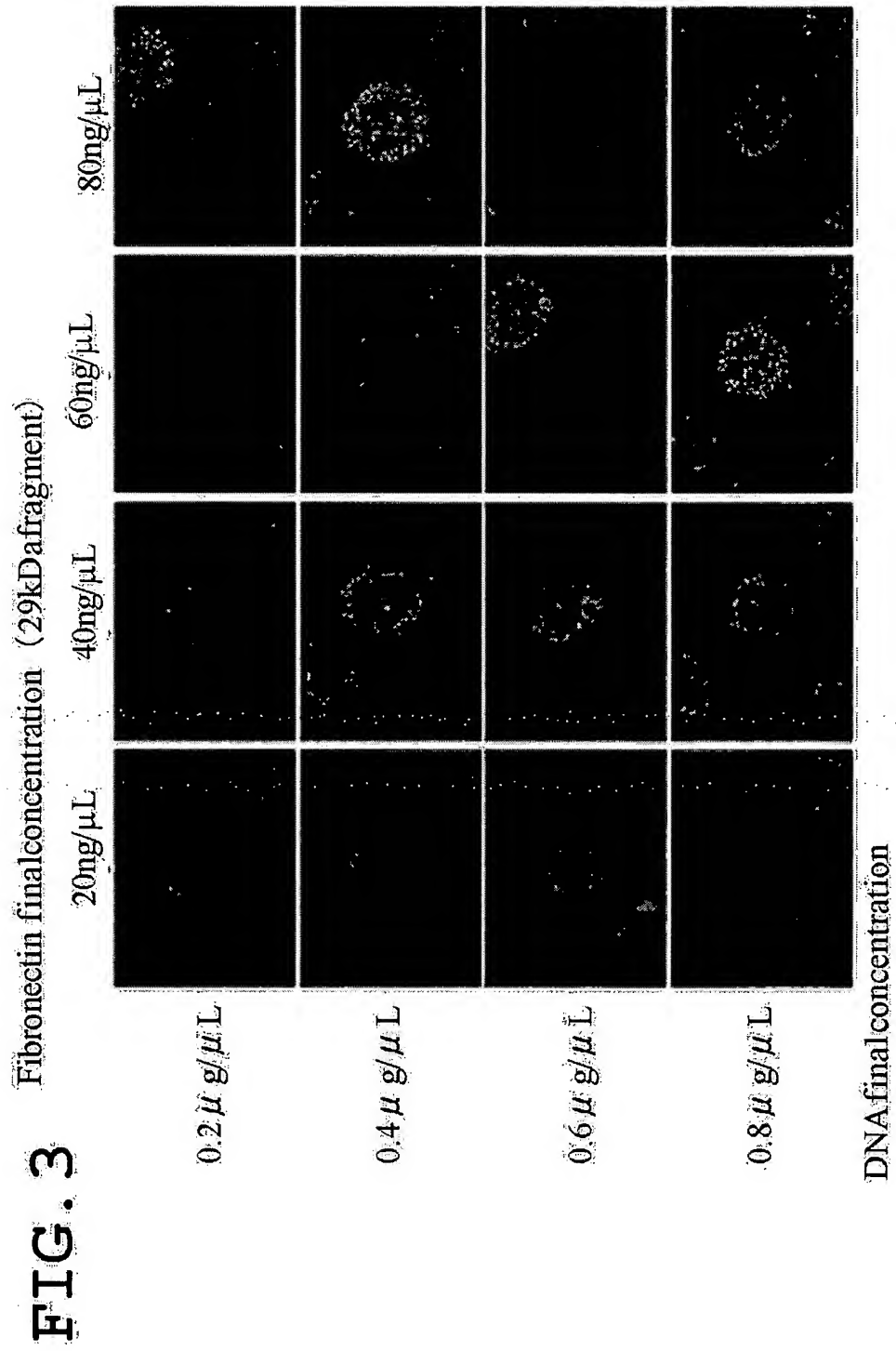
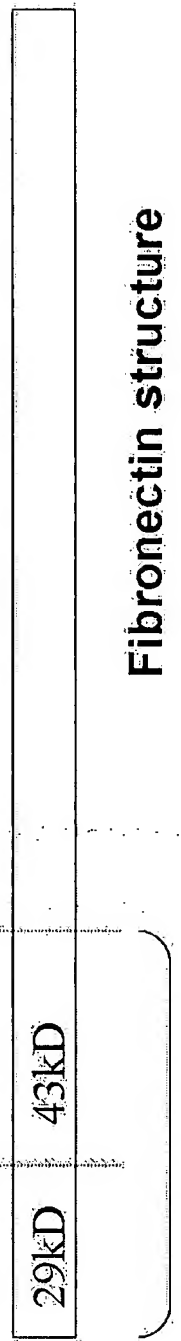


FIG. 4 N-terminal C-terminal



Fibronectin structure

Fragments	Binding molecules
29 kD	Actin, Heparin, Fibrin, etc.
43 kD	Collagen (Gelatin)

	29 kD	43 kD	72 kD
TF efficiency	◎	○	◎
Cross-contamination	none	some	some

FIG. 5

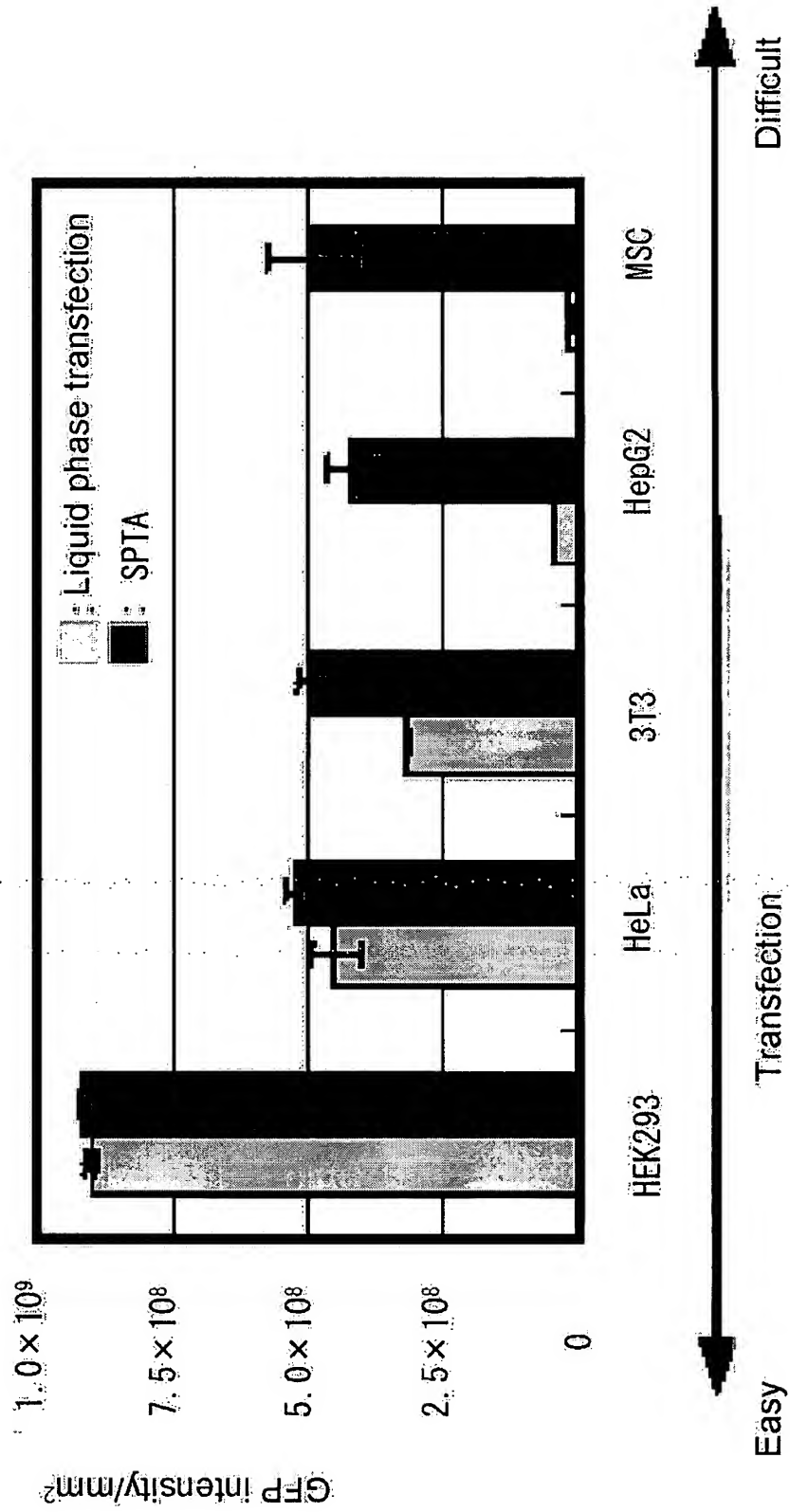


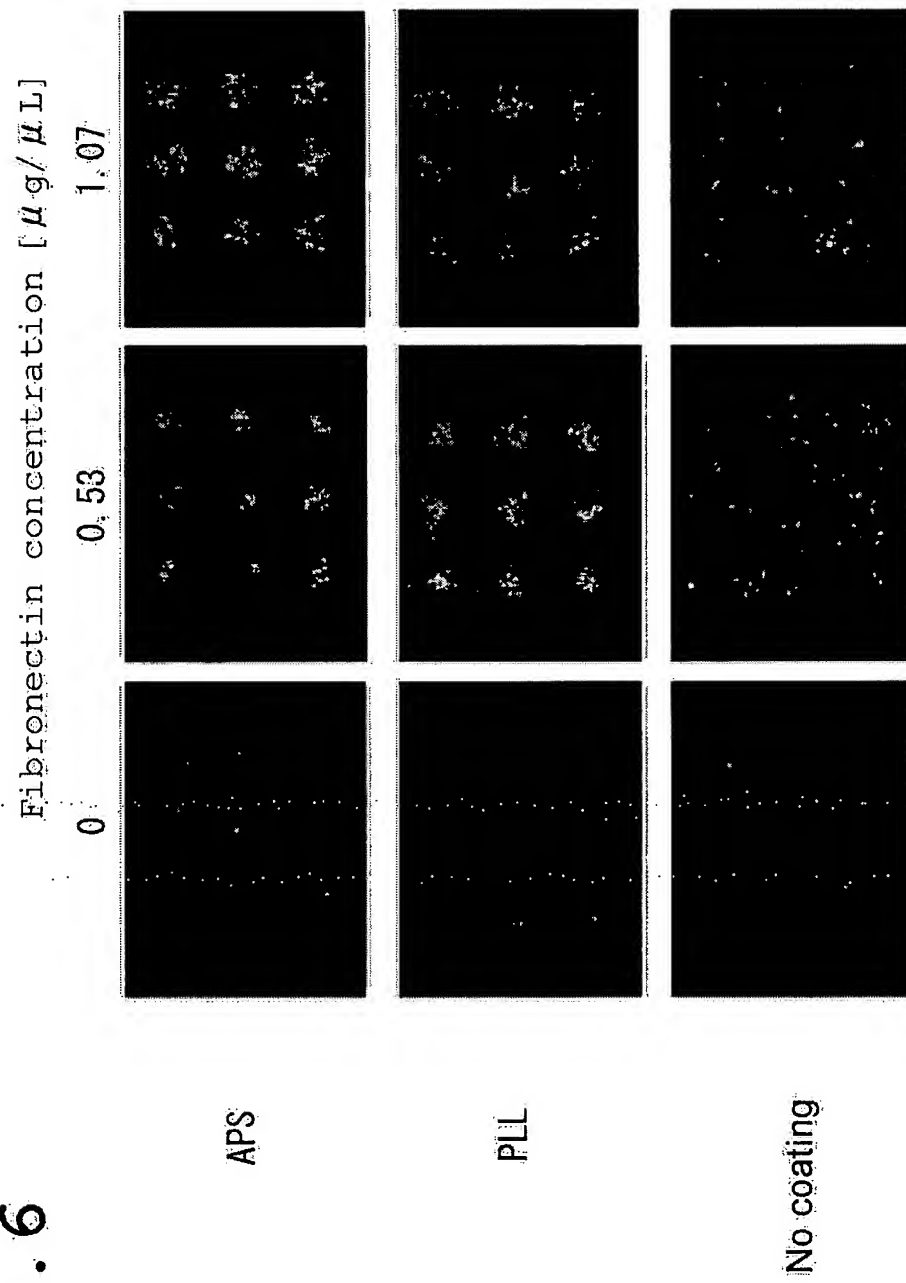
FIG. 6

Fig. 7

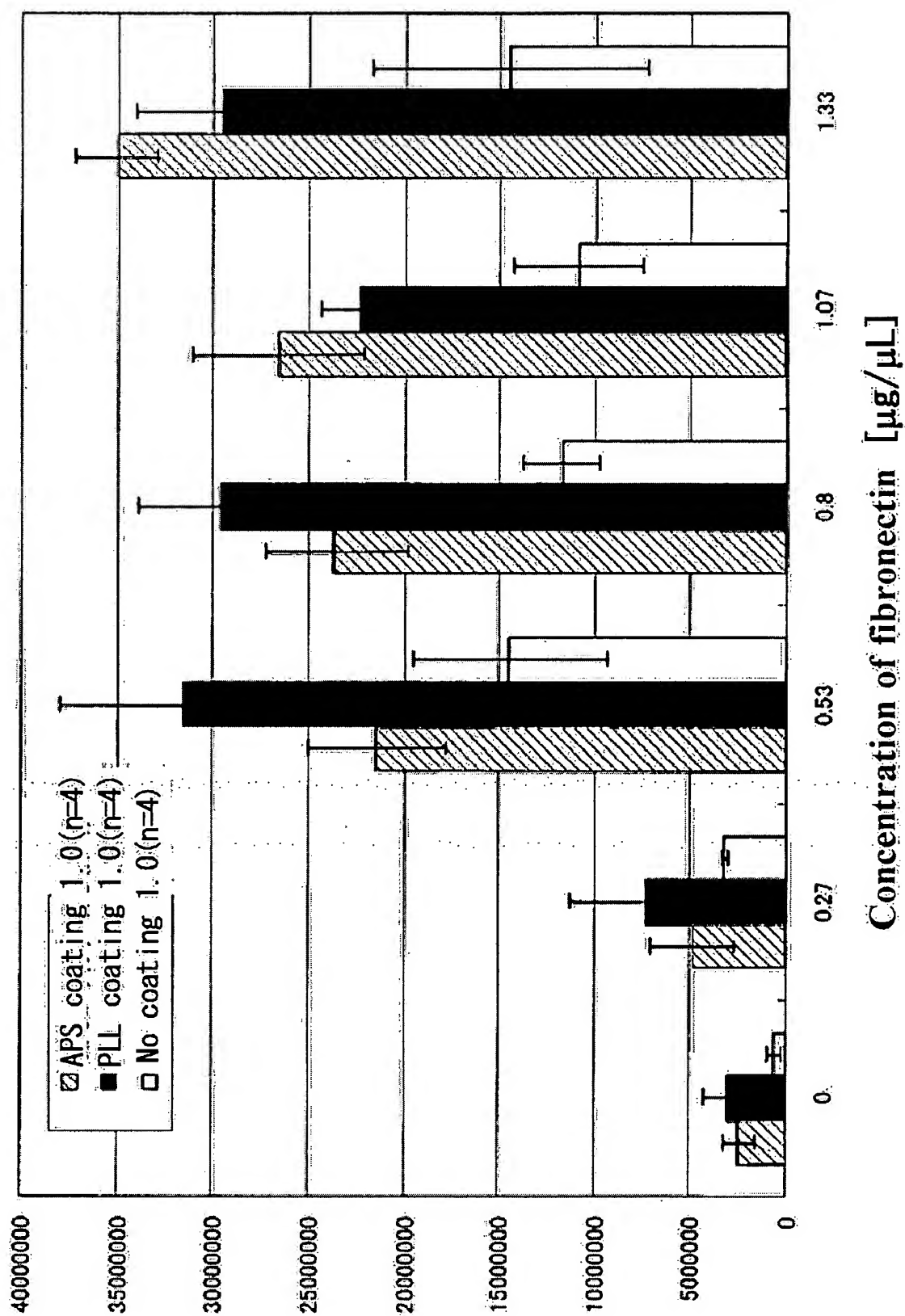
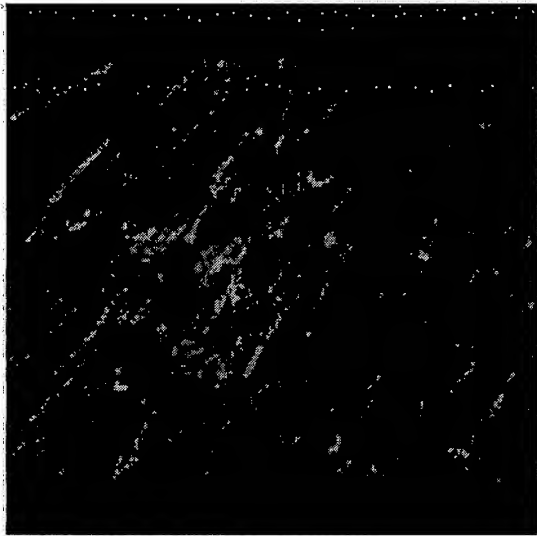
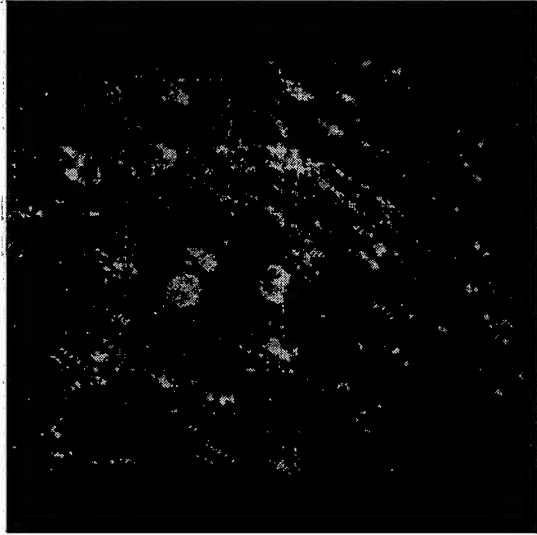
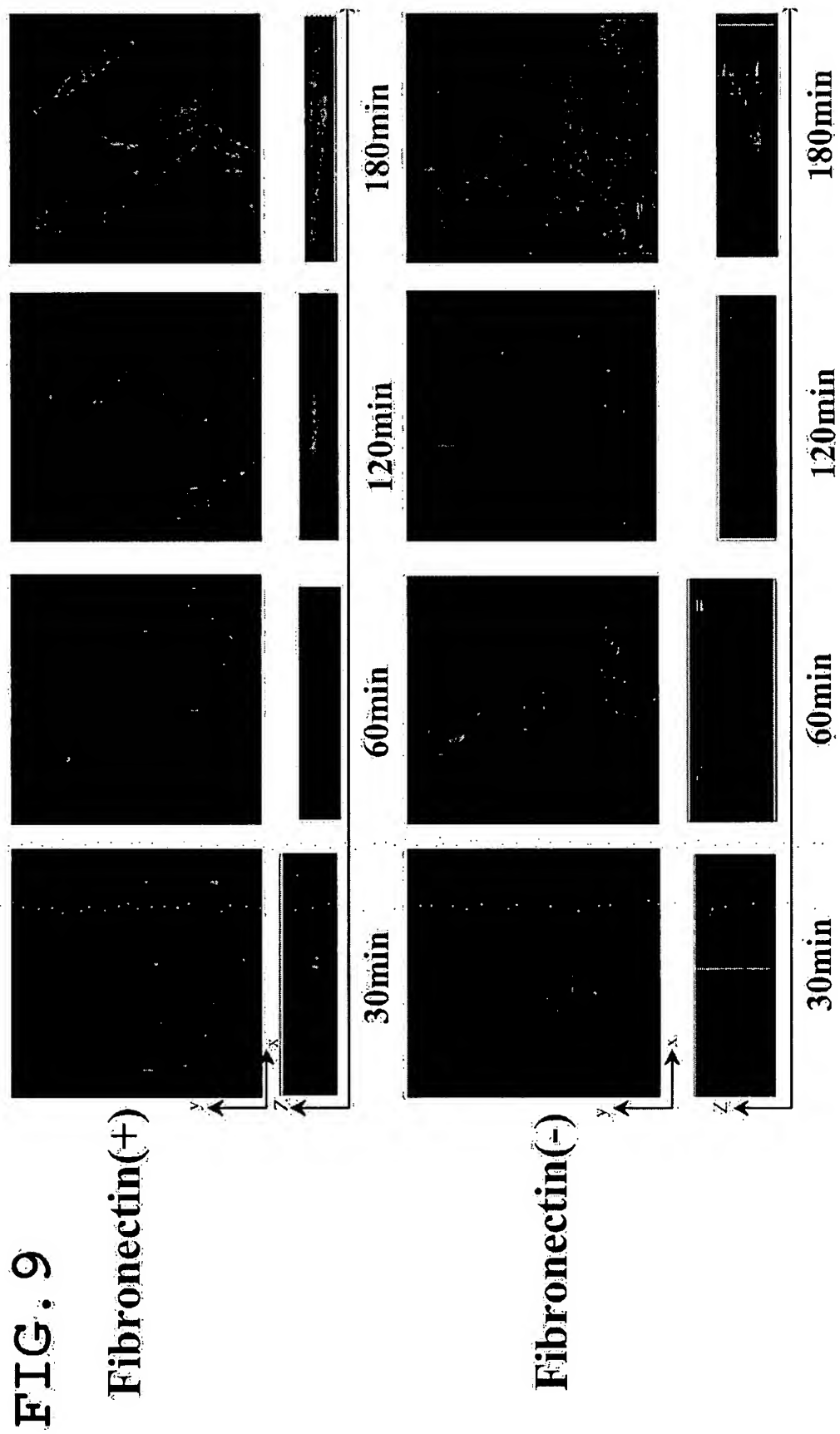


FIG. 8**Fibronectin(+)****Fibronectin(-)**



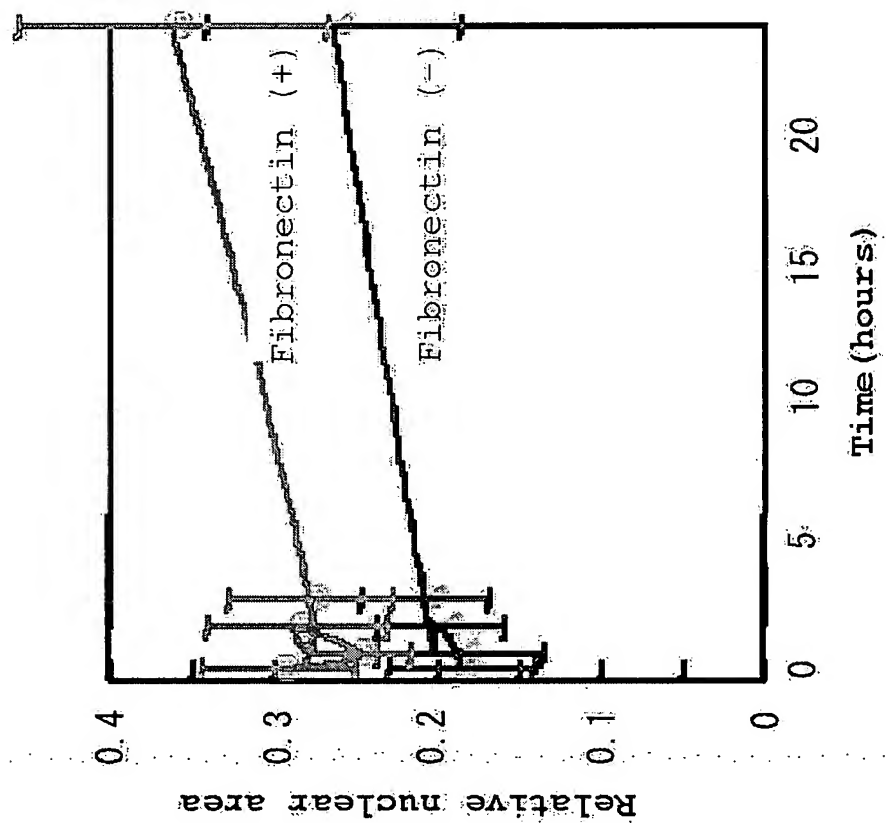


FIG. 10

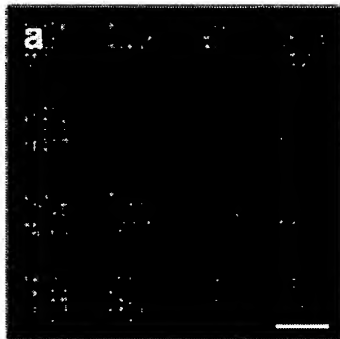
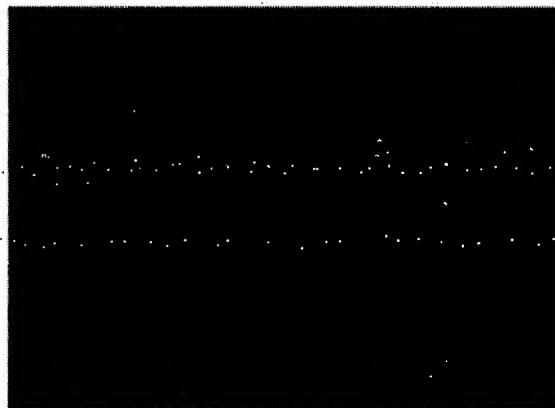
FIG. 11**FIG. 12**

FIG. 13

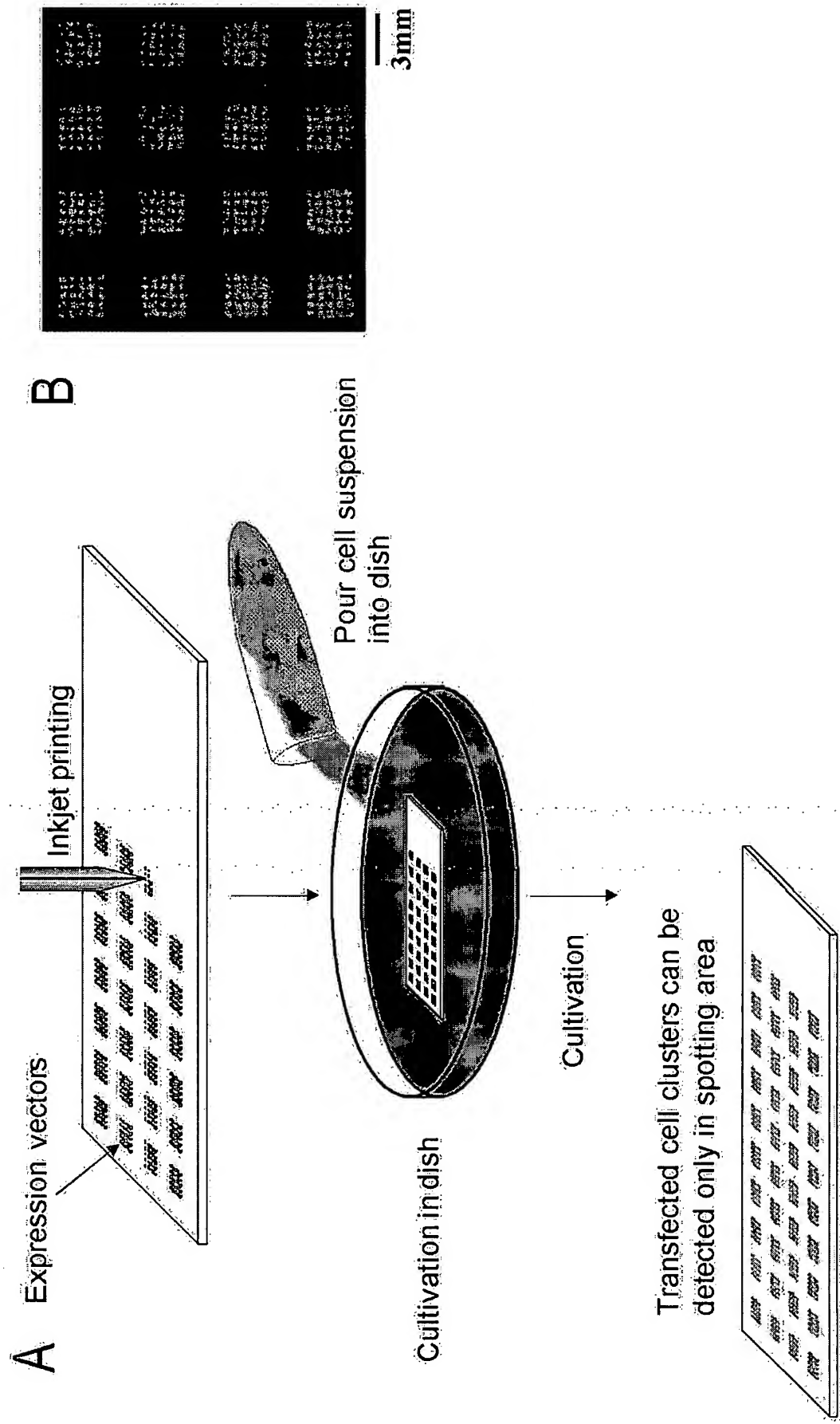


FIG.13C

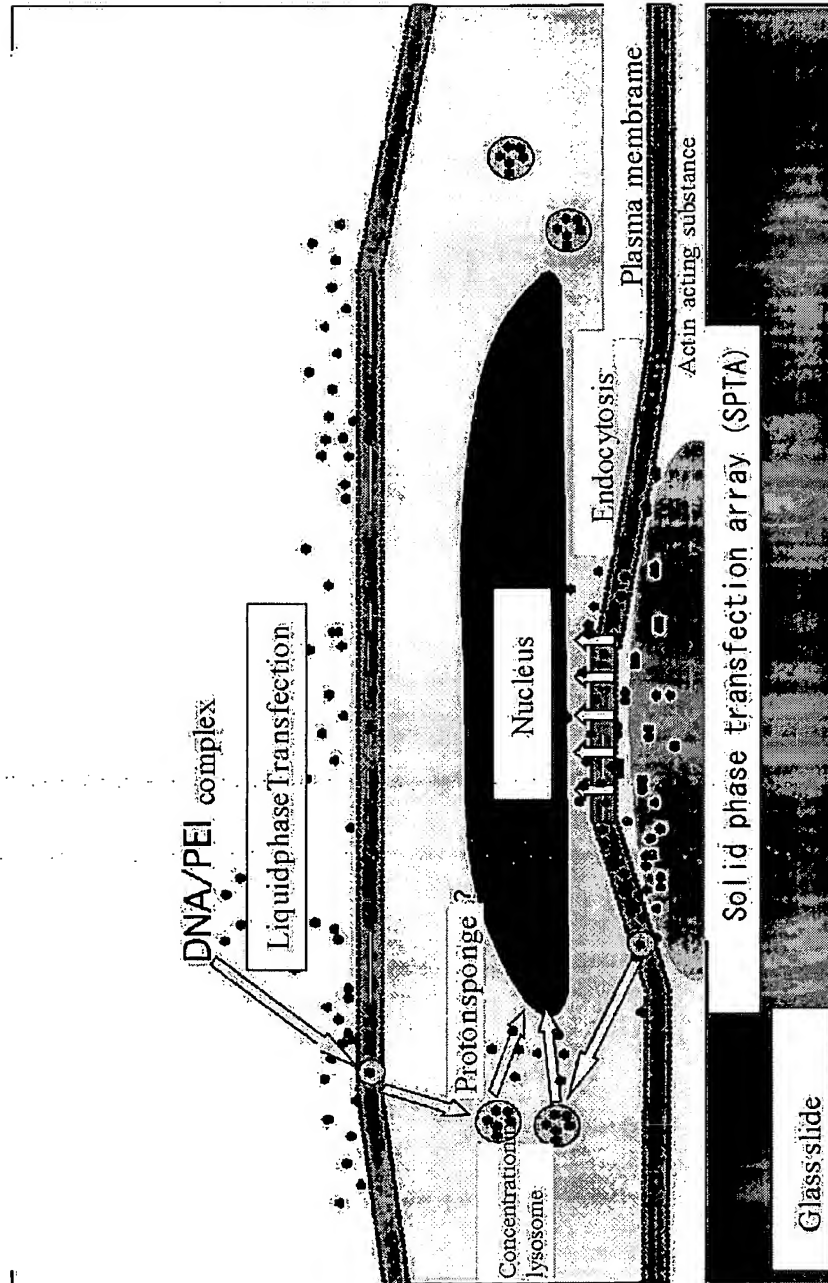


FIG. 14

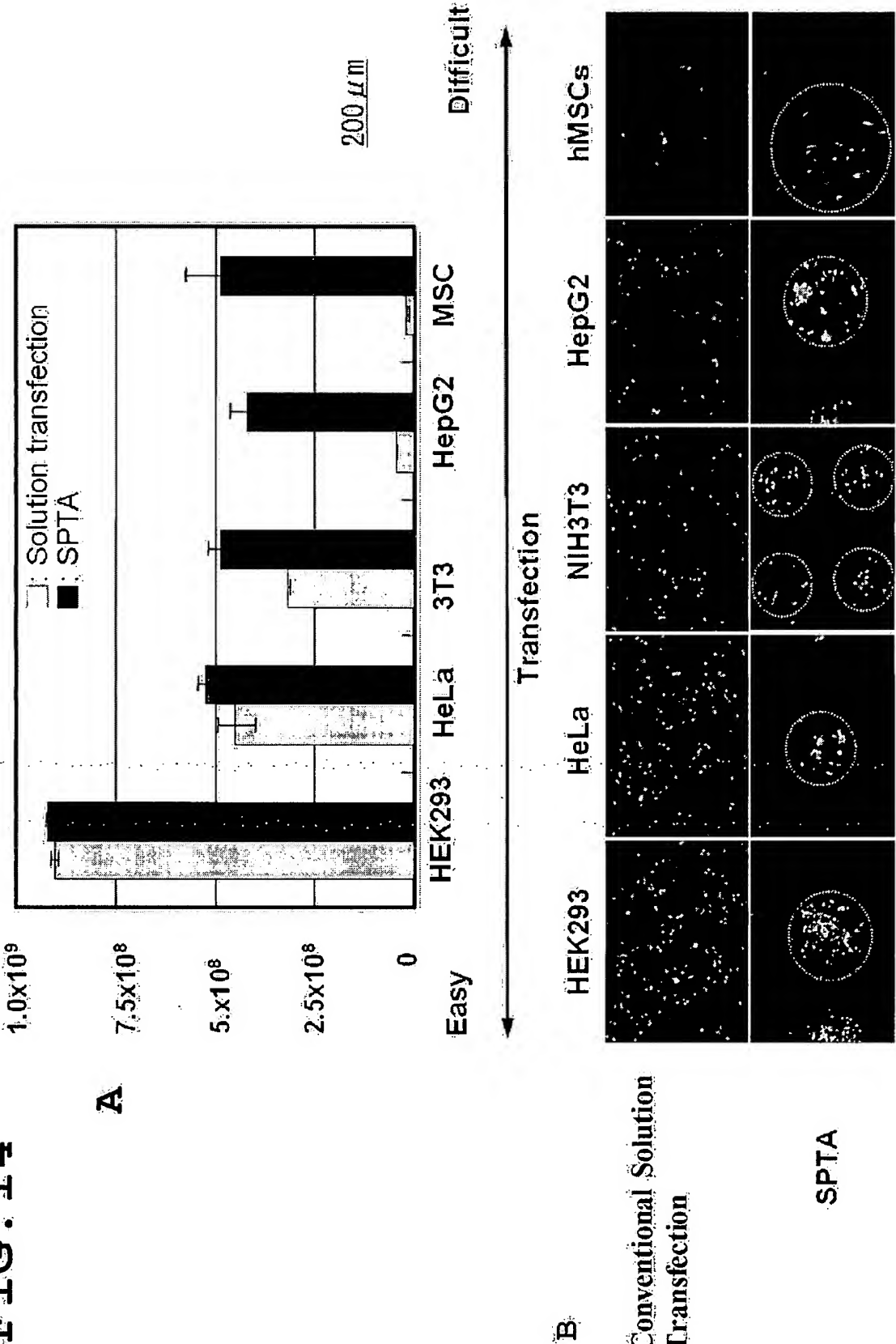


FIG. 14C

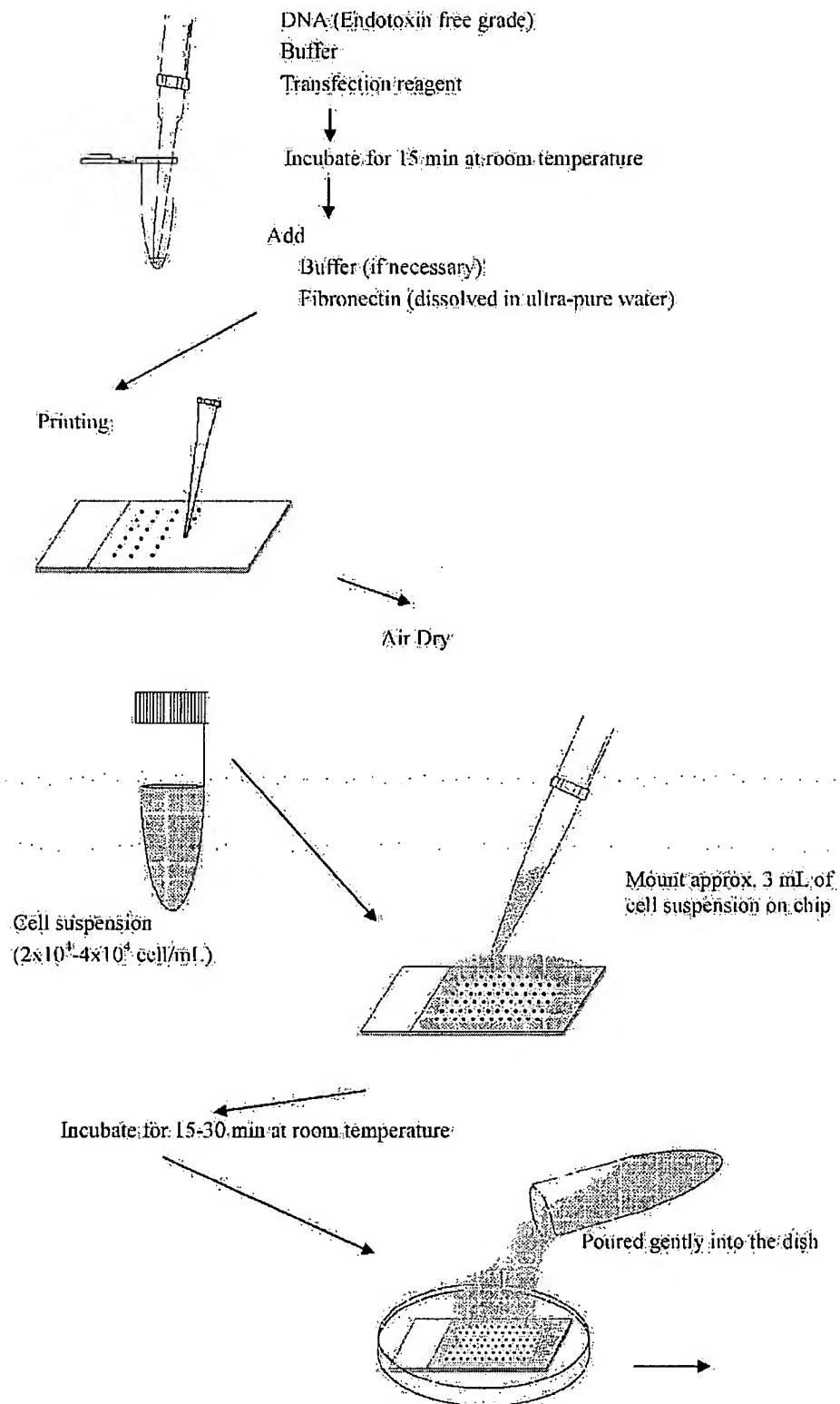
Solid-Phase Transfection Method

FIG. 14D

For HEK293

DMEM (serum free)	9.5 uL
Plasmid DNA (1mg/mL)	1.5 uL
TransFast (1mg/mL)	9.0 uL
DMEM (serum free)	5.0 uL
Fibronectin (4mg/mL)	5.0 uL
Final volume	30.0 uL

Scheme for HEK293

1.5mL micro-tube

↓ ←DMEM

↓ ←Plasmid DNA

mix Incubate for 2-3 days
at 37°C in 5% CO₂

↓ ←TransFast

mix completely and incubate for 15 min at RT

↓ ←DMEM

↓ ←Fibronectin

mix completely

↓

ready to print

For HeLa, NIH3T3-3, HepG2

DMEM (serum free)	14.5 uL
Plasmid DNA (1mg/mL)	1.5 uL
Lipofectamine2000	4.5 uL
DMEM (serum free)	5.0 uL
Fibronectin (4mg/mL)	5.0 uL
Final volume	30.0 uL

Scheme for HeLa, NIH3T3-3, and HepG2

1.5mL micro-tube

↓ ←DMEM

↓ ←Plasmid DNA

mix

↓ ←Lipofectamine2000

mix completely and incubate for 15 min at RT

↓ ←DMEM

↓ ←Fibronectin

mix completely

↓

ready to print

For hMSCs

	N/P=5	N/P=10	N/P=20
DMEM (serum free)	12.75	12.0	10.5 uL
Plasmid DNA (1mg/mL)	1.5	1.5	1.5 uL
JetPEI (x4) conc.	0.75	1.5	3.0 uL
Fibronectin (4mg/mL)	5.0	5.0	5.0 uL
Final volume	20.0	20.0	20.0 uL

Scheme for hMSCs

1.5mL micro-tube

↓ ←DMEM

↓ ←Plasmid DNA

mix

↓ ←jetPEI

mix completely and incubate for 15 min at RT

↓ ←Fibronectin

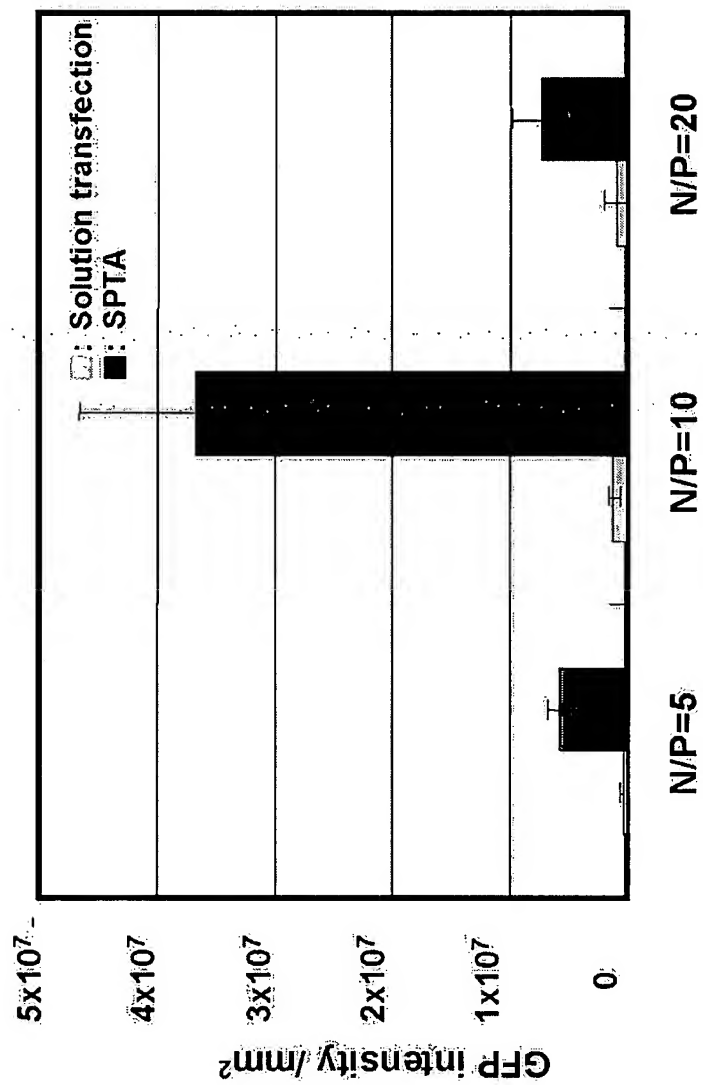
mix completely

↓

ready to print

FIG. 15

A



B

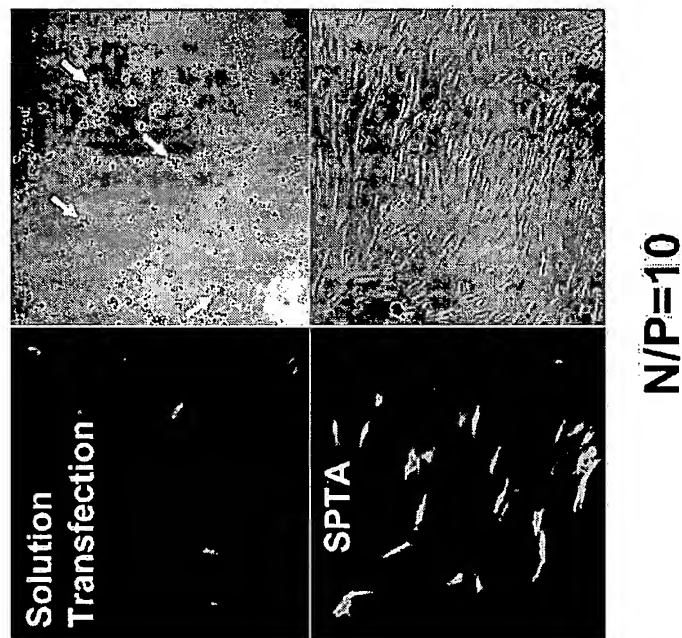


FIG. 16

A



B



FIG. 16C

Number of adherent cells						
	Time(min)					
	0	5	10	15	20	30
APS	235	220	202	157	170	162
APS+gelatin	212	206	184	145	156	183
APS+fibronectin	229	198	183	132	100	85
APS+pronectin L	257	170	128	94	71	47
PLL	231	221	205	162	168	159
PLL+gelatin	218	208	186	151	146	156
PLL+fibronectin	225	174	162	129	98	79
PLL+pronectin L	214	151	132	90	76	50
MAS	231	222	216	182	176	169
MAS+gelatin	224	198	182	163	159	162
MAS+fibronectin	218	182	169	143	112	86
MAS+pronectin L	220	178	152	124	101	66
No coating	226	216	208	192	183	164
Cell adhesion rate (proportion of adherent cells (%))						
	Time(min)					
	0	5	10	15	20	30
APS	0	6.382979	14.04255	33.19149	27.65957	31.06383
APS+gelatin	0	2.830189	13.20755	31.60377	26.41509	13.67925
APS+fibronectin	0	13.53712	20.08734	42.35808	56.33188	62.8821
APS+pronectin L	0	33.85214	50.97276	63.42412	72.37354	81.71206
PLL	0	4.329004	11.25541	29.87013	27.27273	31.16883
PLL+gelatin	0	4.587156	14.6789	30.73394	33.02752	28.44037
PLL+fibronectin	0	22.66667	28	42.66667	56.44444	64.88889
PLL+pronectin L	0	29.43925	38.31776	57.94393	64.48598	76.63551
MAS	0	3.896104	6.493506	21.21212	23.80952	26.83983
MAS+gelatin	0	11.60714	18.75	27.23214	29.01786	27.67857
MAS+fibronectin	0	16.51376	22.47706	34.40367	48.62385	60.55046
MAS+pronectin L	0	20	30.90909	43.63636	54.09091	70
No coating	0	4.424779	7.964602	15.04425	19.02655	27.43363

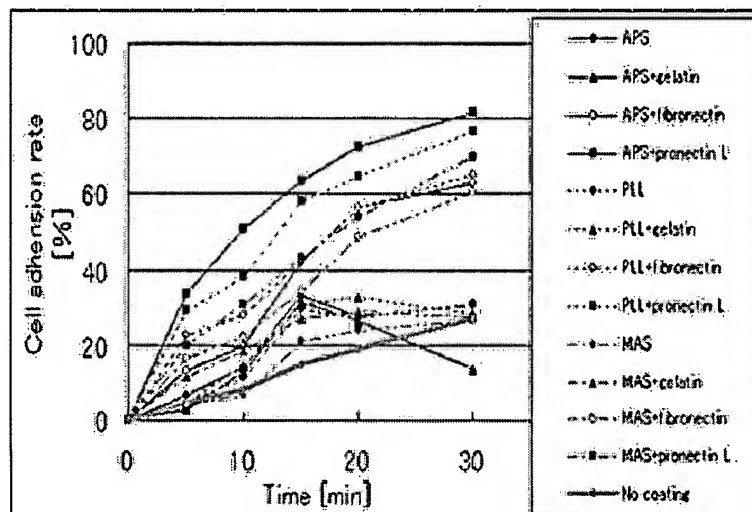


FIG. 17

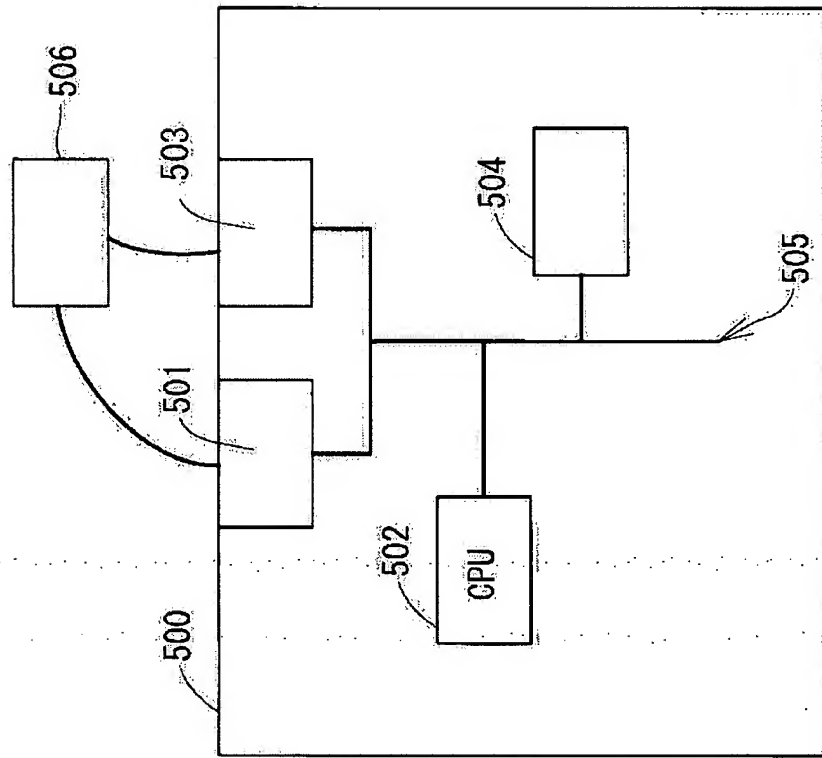
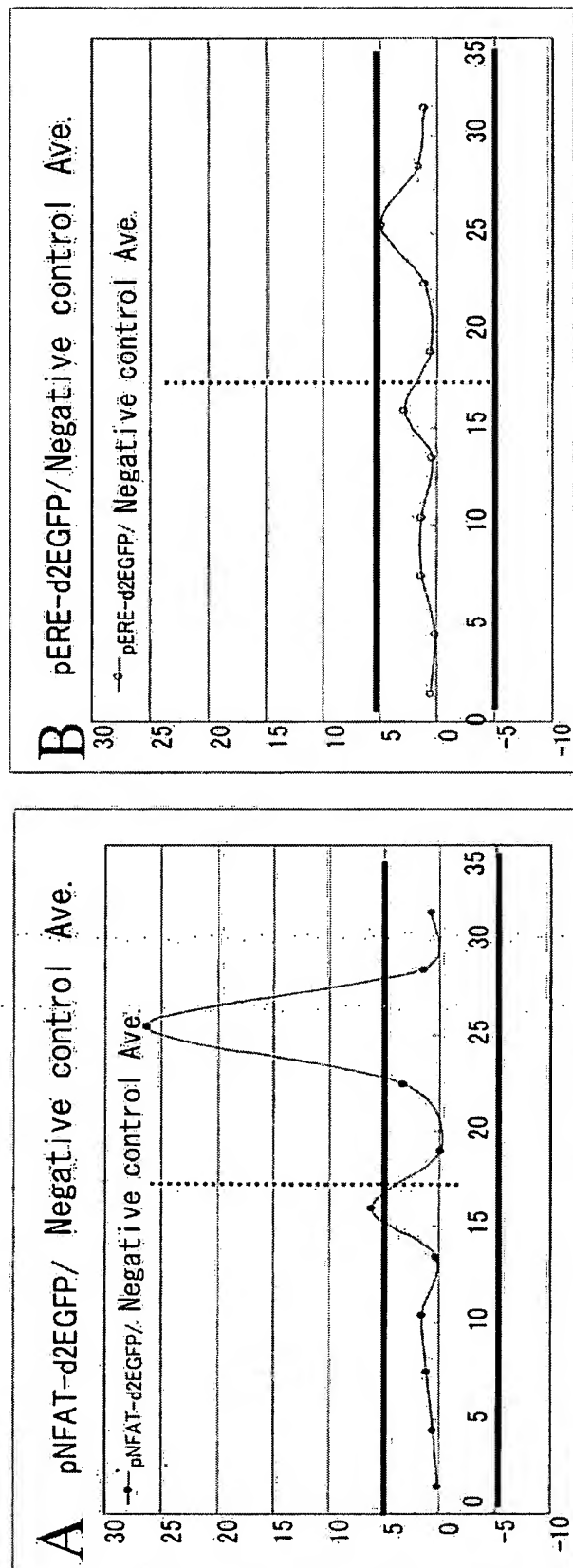
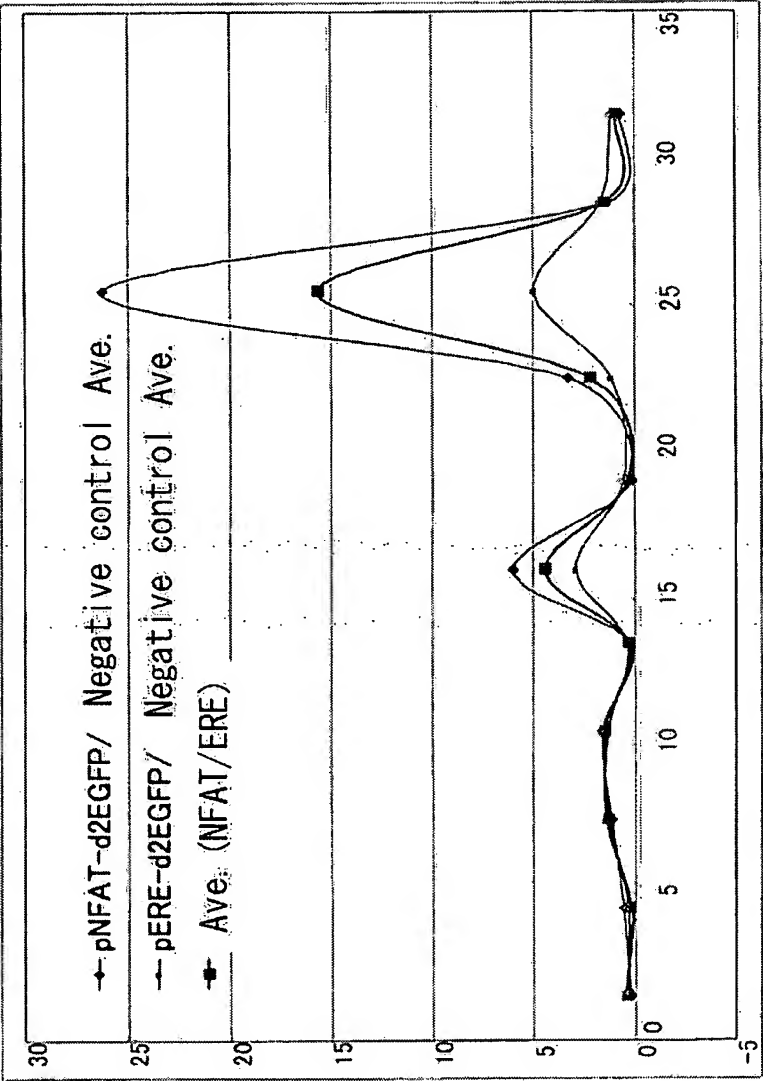


FIG. 18A



	0-31.5 hr	17.5-31.5 hr	0-17.5 hr
A	+	+	+
B	+	+	-

FIG. 18B



	0-31.5 hr	17.5-31.5 hr	0-17.5 hr
NFAT	+	+	+
ERE	+	-	-
NFAT/ERE	+	+	-

FIG. 19

	pNFAT-d2EGFP
	pMyc-d2EGFP
	pAP1-d2EGFP
	pSRE-d2EGFP
	pGRE-d2EGFP
	pCRE-d2EGFP
	pNFkB-d2EGFP
	pAP1(PMA)-d2EGFP
	pERE-d2EGFP
	pRARE-d2EGFP
	pTRE-d2EGFP
	pE2F-d2EGFP
	pp53-d2EGFP
	pRb-d2EGFP
	pGAS-d2EGFP
	pISRE-d2EGFP
	pSTAT3-d2EGFP

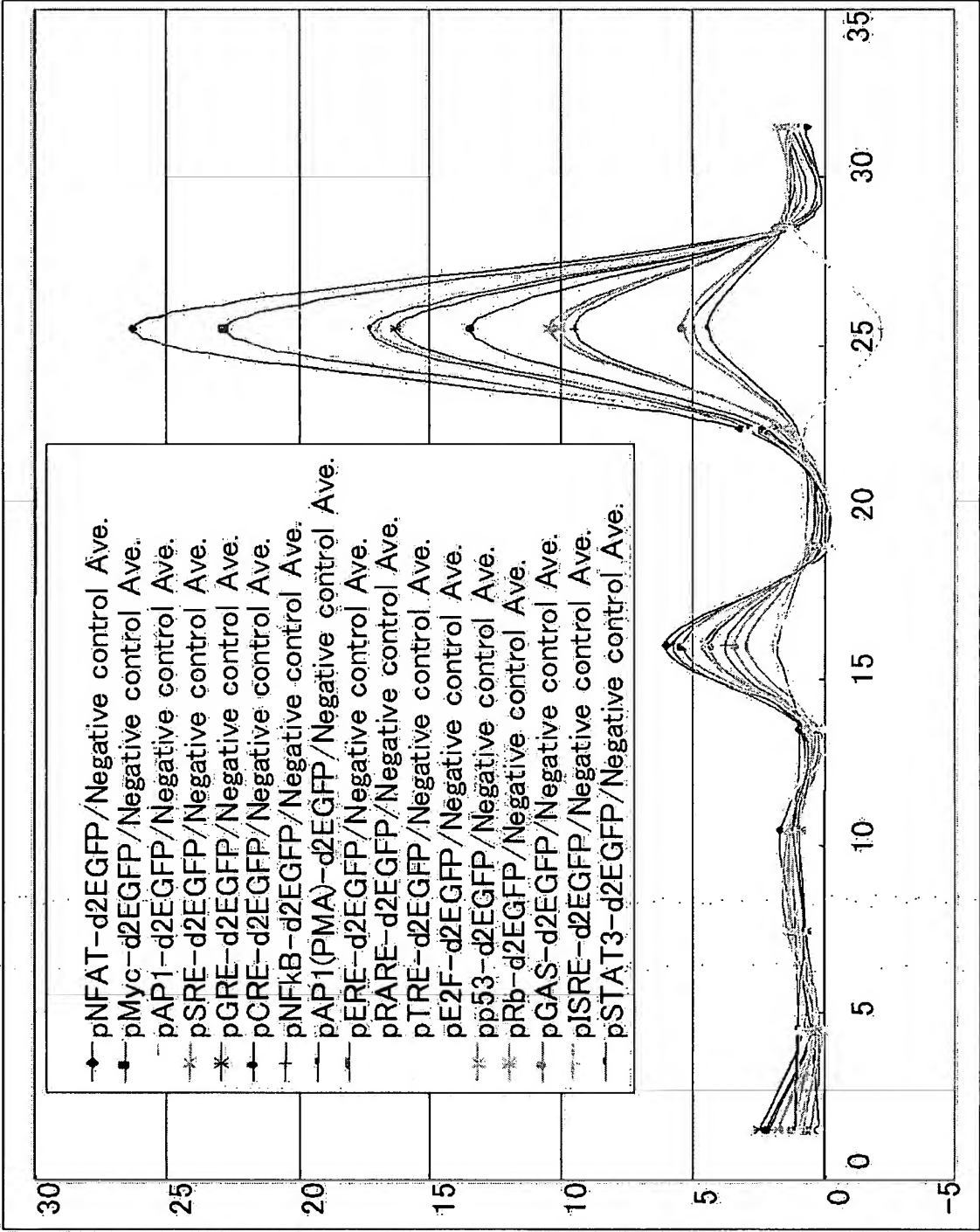


FIG. 20

Ti=5	Day 0-1				
	Induction of differentiation	0-31.5	0-17.5	17.5-31.5	
	Extraction number=1	82.35294	29.41176	82.35294	
	Extraction number=2	70.58824	41.17647	88.23529	
	Extraction number=3	88.23529	29.41176	94.11765	
	Extraction number=5	94.11765	11.76471	94.11765	
	Extraction number=8	100	5.882353	100	
	Extraction number=16	100	0	100	
	Extraction number=17	100	0	100	

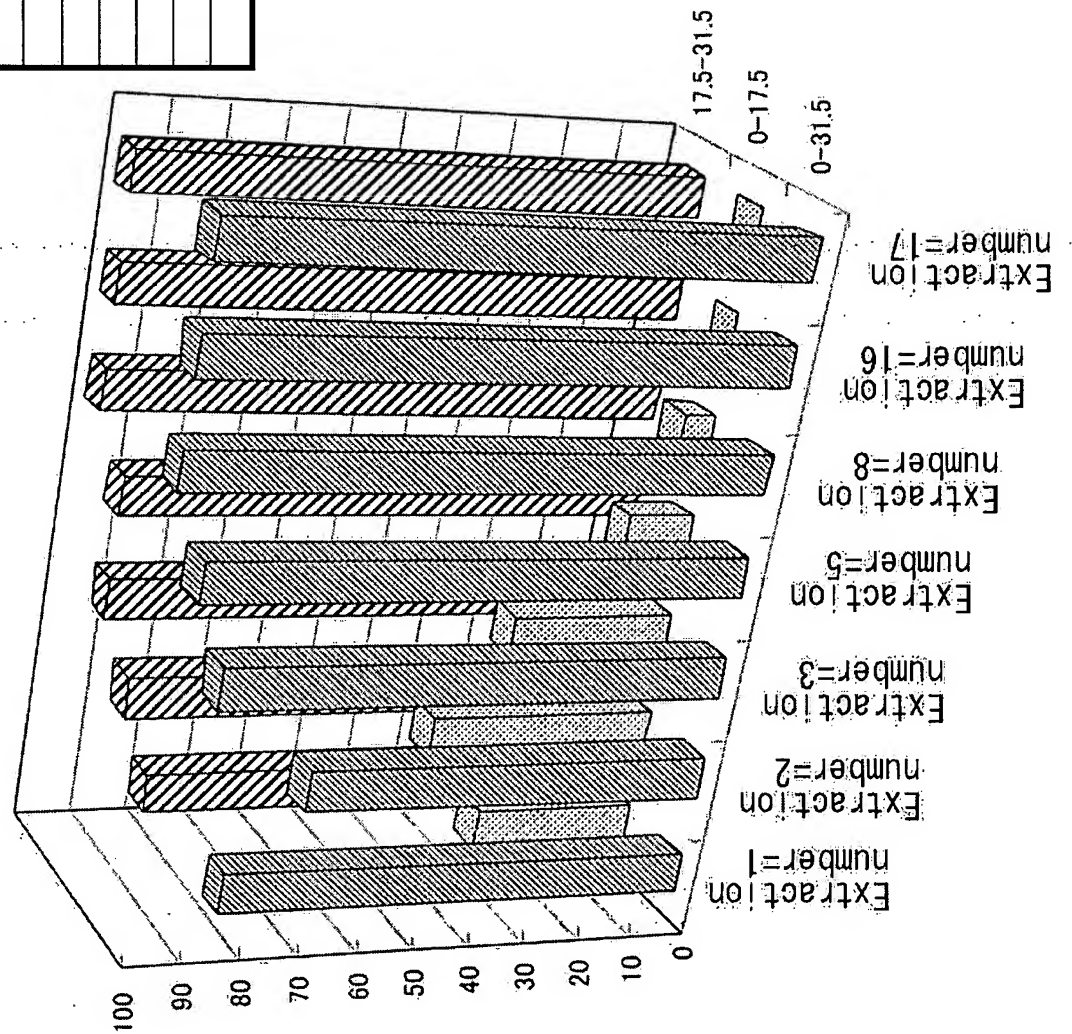


FIG. 21

No induction of differentiation	0-31.5	0-17.5	17.5-31.5
Extraction number=1	5.882353	5.882353	0
Extraction number=2	0	0	0
Extraction number=3	0	0	0
Extraction number=5	0	0	0
Extraction number=8	0	0	0
Extraction number=16	0	0	0
Extraction number=17	0	0	0

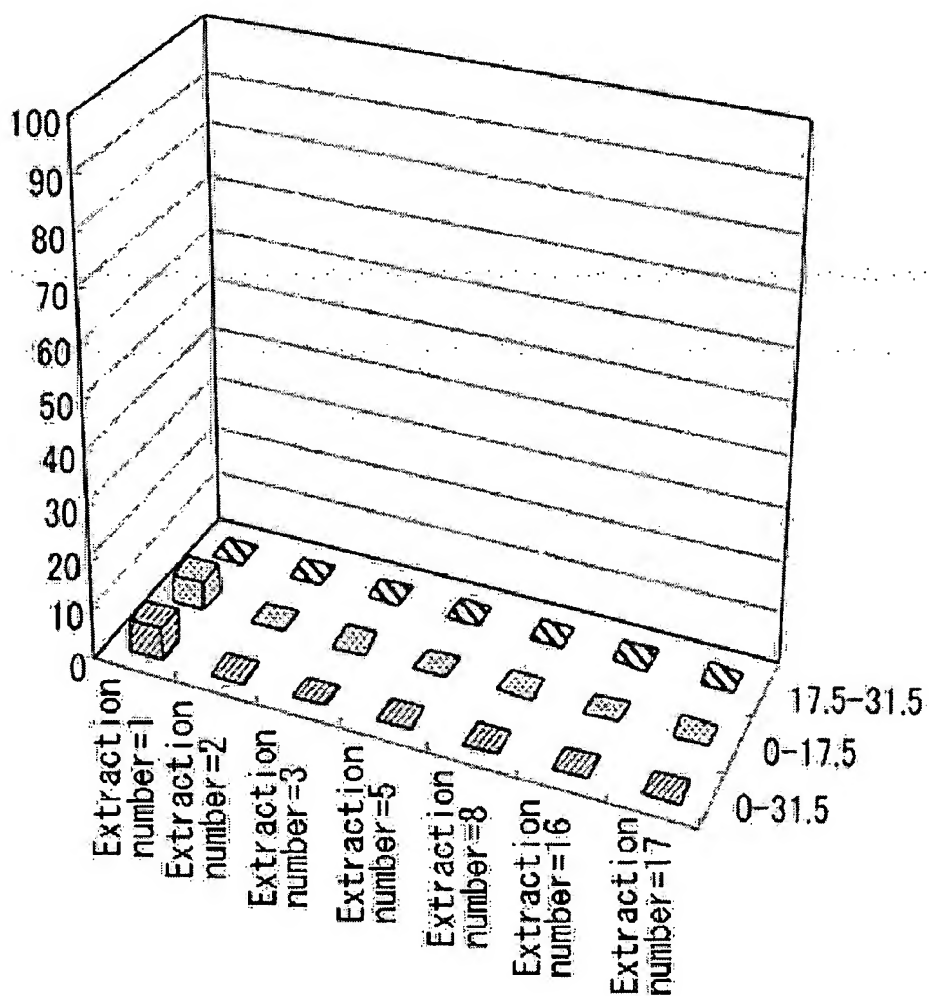


FIG. 22

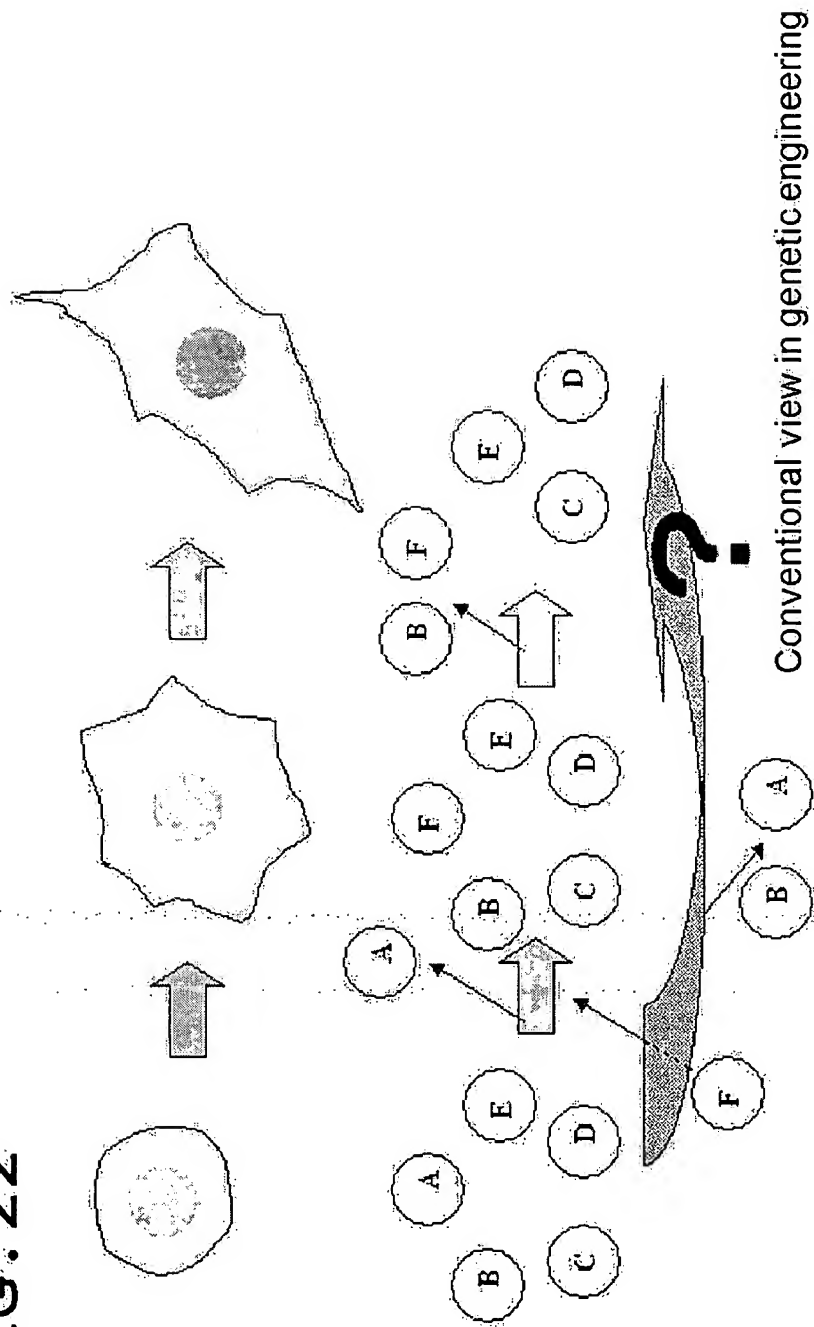


FIG. 23

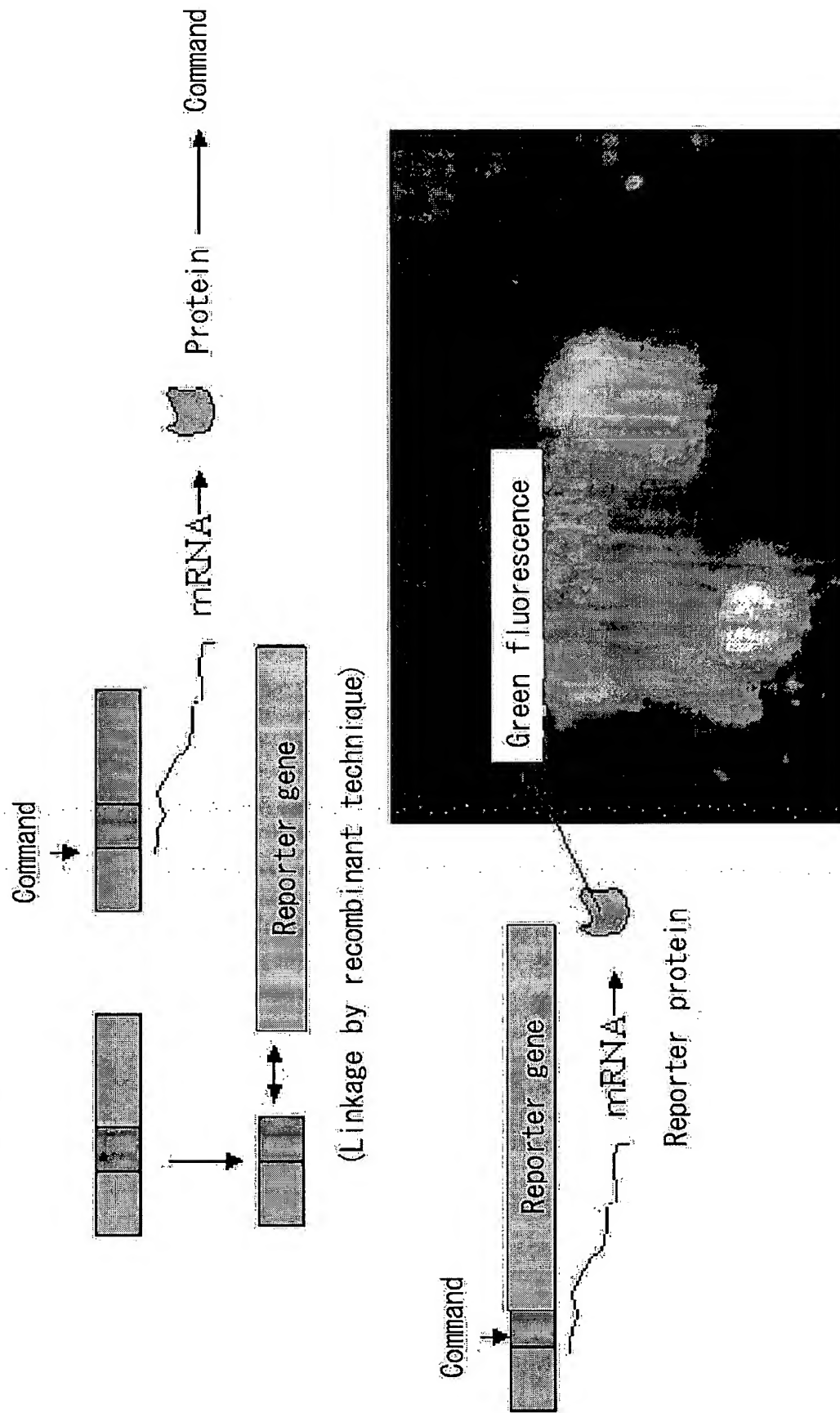
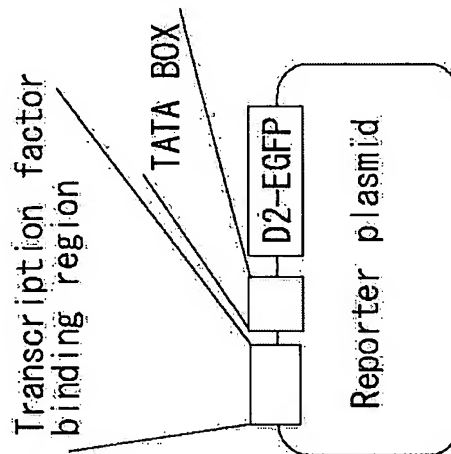


FIG. 24



Construction of transcription factor reporter

Vector	Pathway	Transcription factor	Cis-acting enhancer element
pNFKB-d2FGFP	IKK/NFKB	NFKB	kB
pAP1-d2FGFP	SAPK/JNK	c-Jun, c-Fos	AP1
pSRF-d2FGFP	MAPK/JNK, MAPK/ERK	Flk-1, STAT, TGF, SRF	SRF
pGRF-d2FGFP	Glicocorticoid (HXP90 mediation)	GR	GRF
pCRF-d2FGFP	PKA/CRFB, JNK/p38 PKA	ATF2/CRFB	CRF
pMpc-TA-d2FGFP, pMYC-d2FGFP	Cell cycle	c-myc	F-box
pHSF-d2FGFP	HSF	HSF	HSF
pNFAT-d2FGFP	NFAT/Calcineurin/PKC	NFAT	NFAT
pAP1(PMA)-TA-d2FGFP	PKC		AP1(PMA)
pRb-TA-d2FGFP	Cell cycle		Rb
pF2F-TA-d2FGFP	Cell cycle		F2F
pp53-TA-d2FGFP	Cell cycle apoptosis		P53
pGAN-TA-d2FGFP	JAK/STAT	STAT1/STAT1	GAS
pISRF-TA-d2FGFP	JAK/STAT	STAT2/STAT1	ISRF
pSTAT3-TA-d2FGFP	JAK/STAT	STAT3/STAT3	STAT3
pFRF-TA-d2FGFP	Estrogen receptor		FRF
pRARF-TA-d2FGFP	Retinoic acid		RARF
pTRF-TA-d2FGFP	Thyroid receptor		TRF

FIG. 25

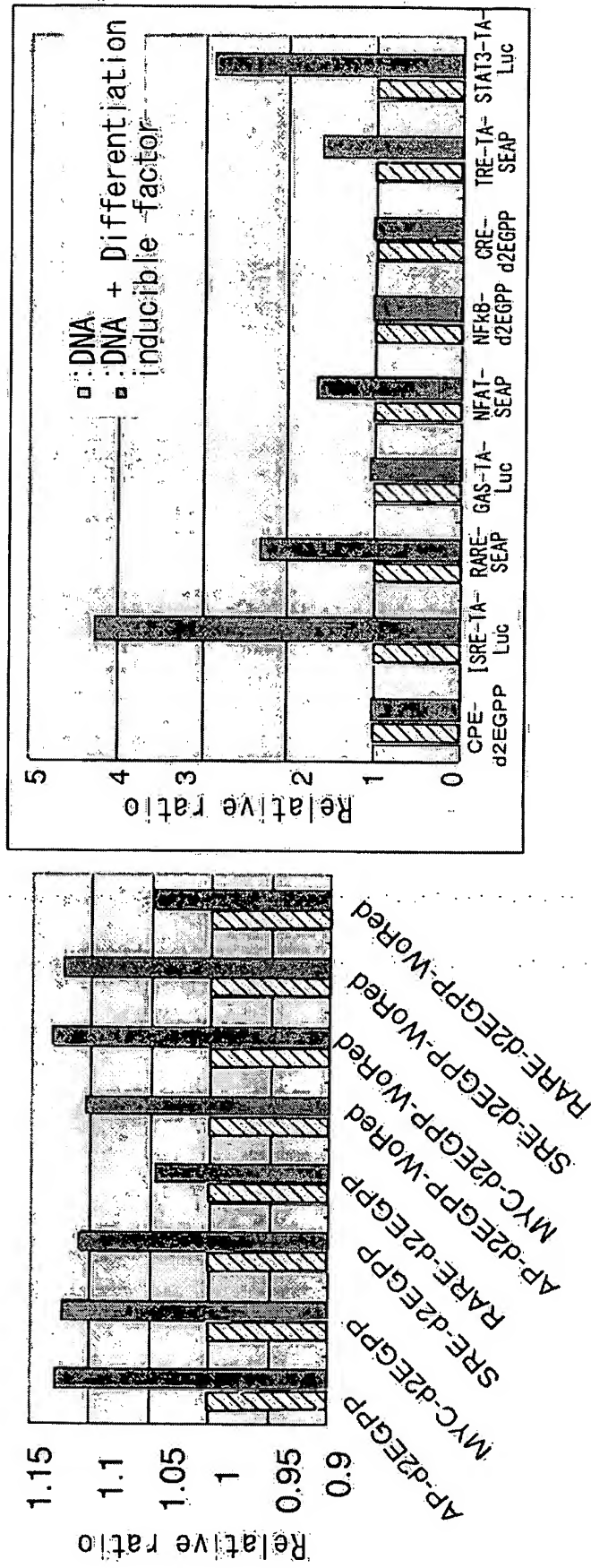


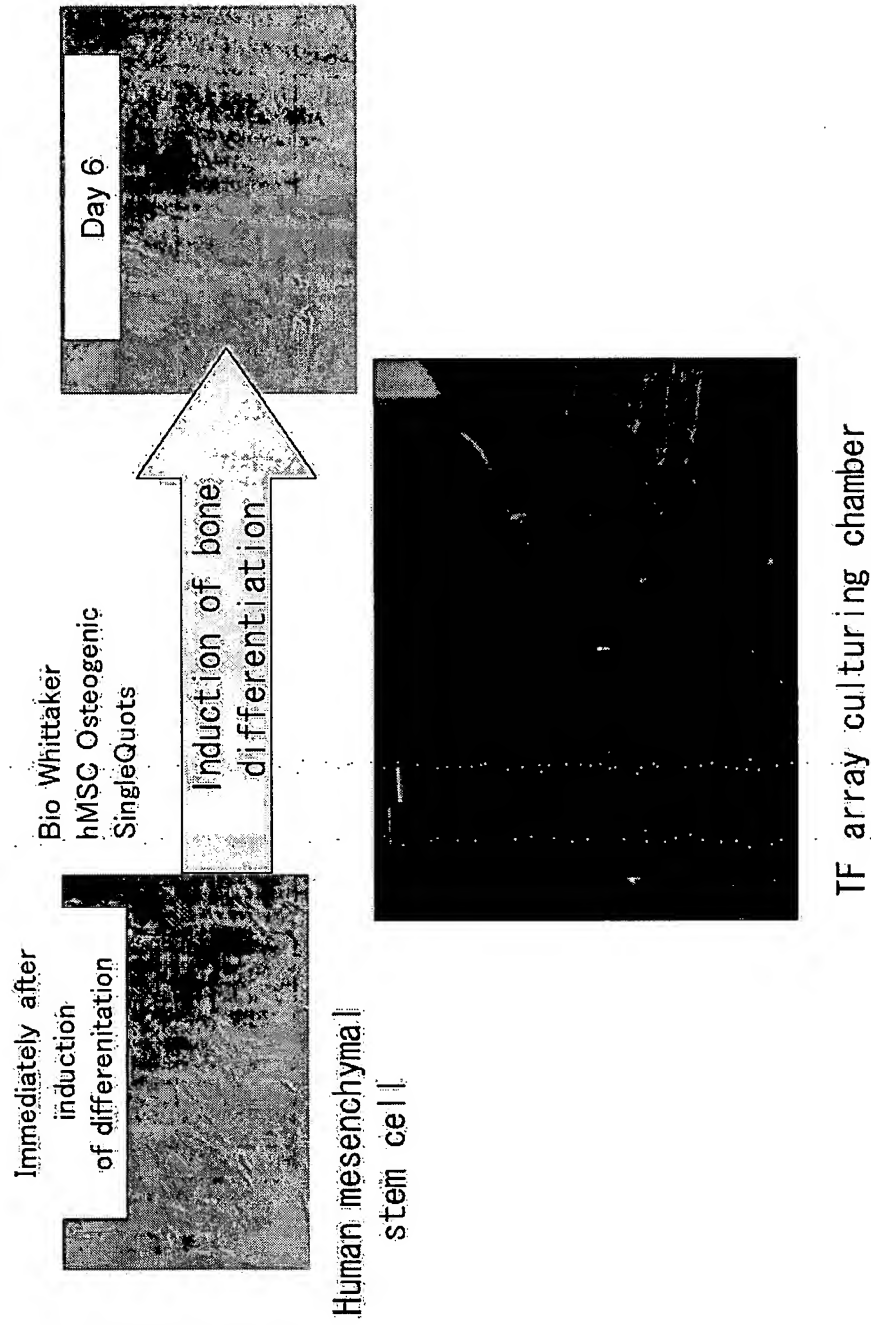
FIG. 26

FIG. 27

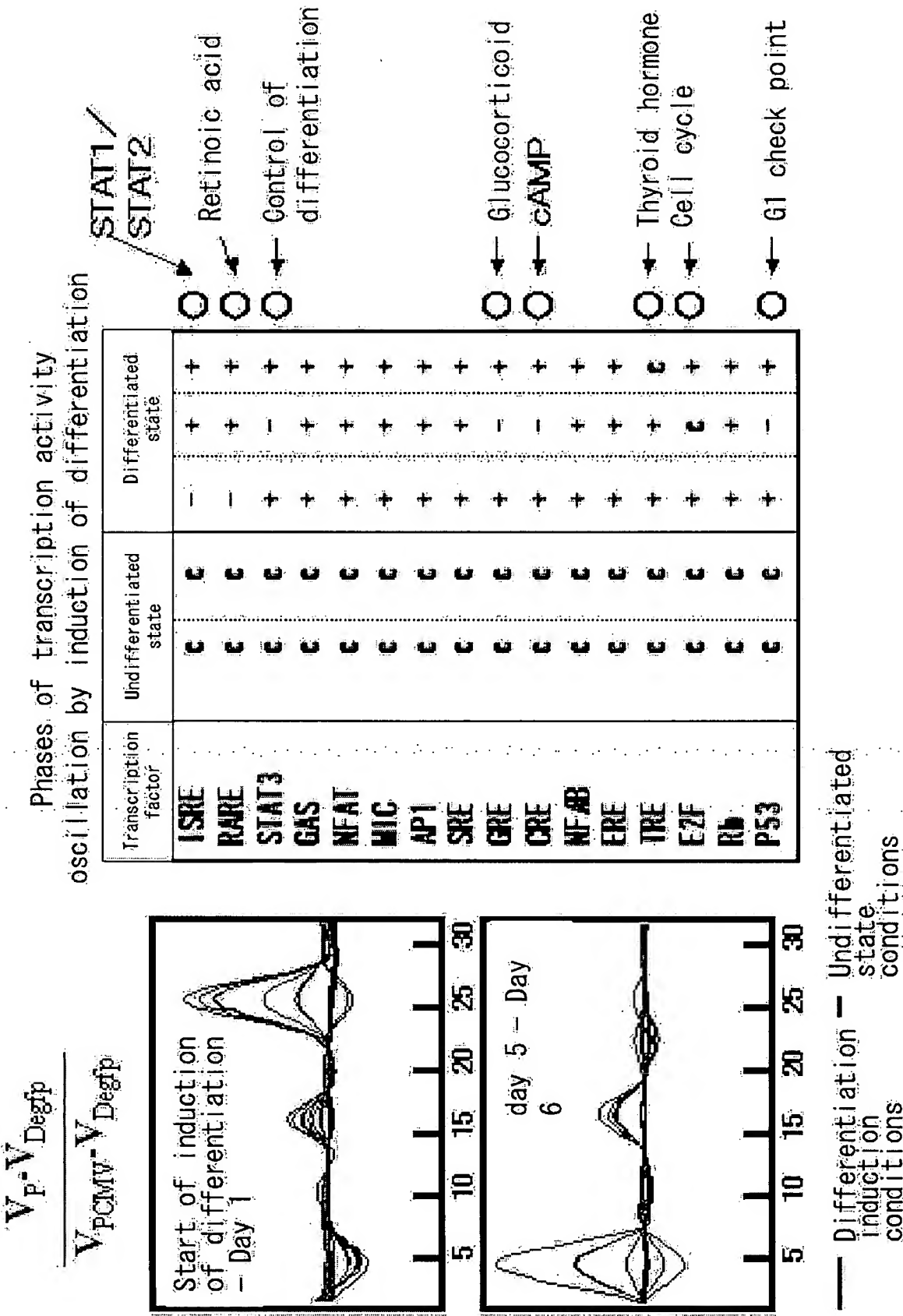


FIG. 28

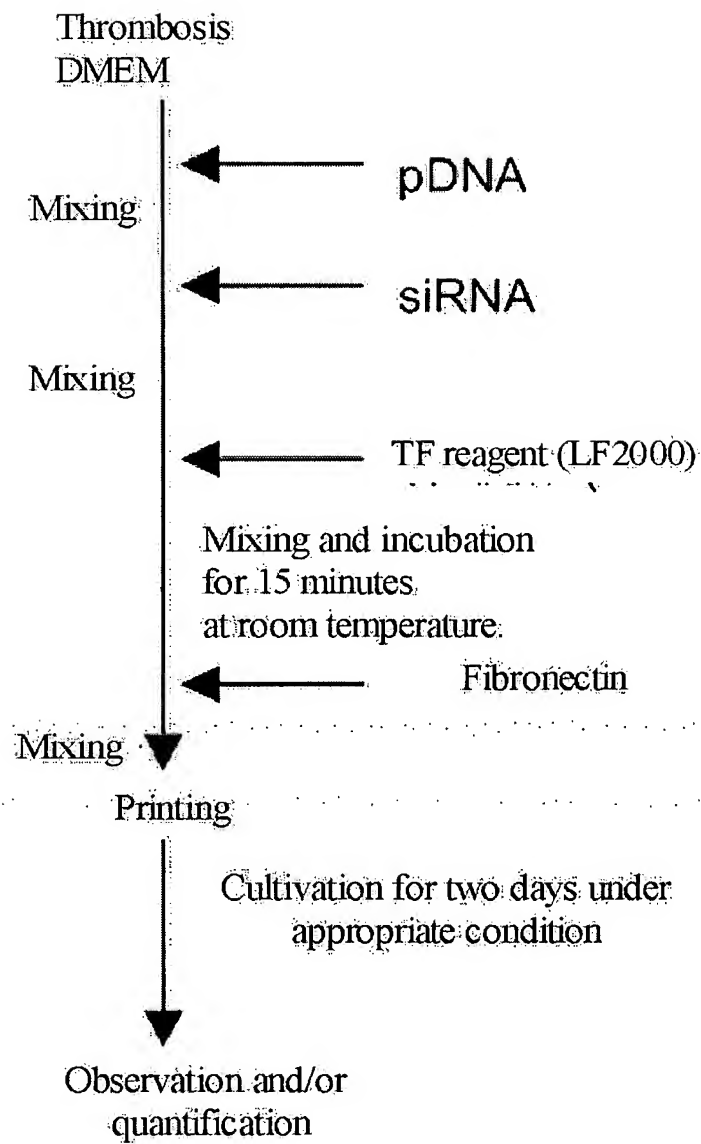
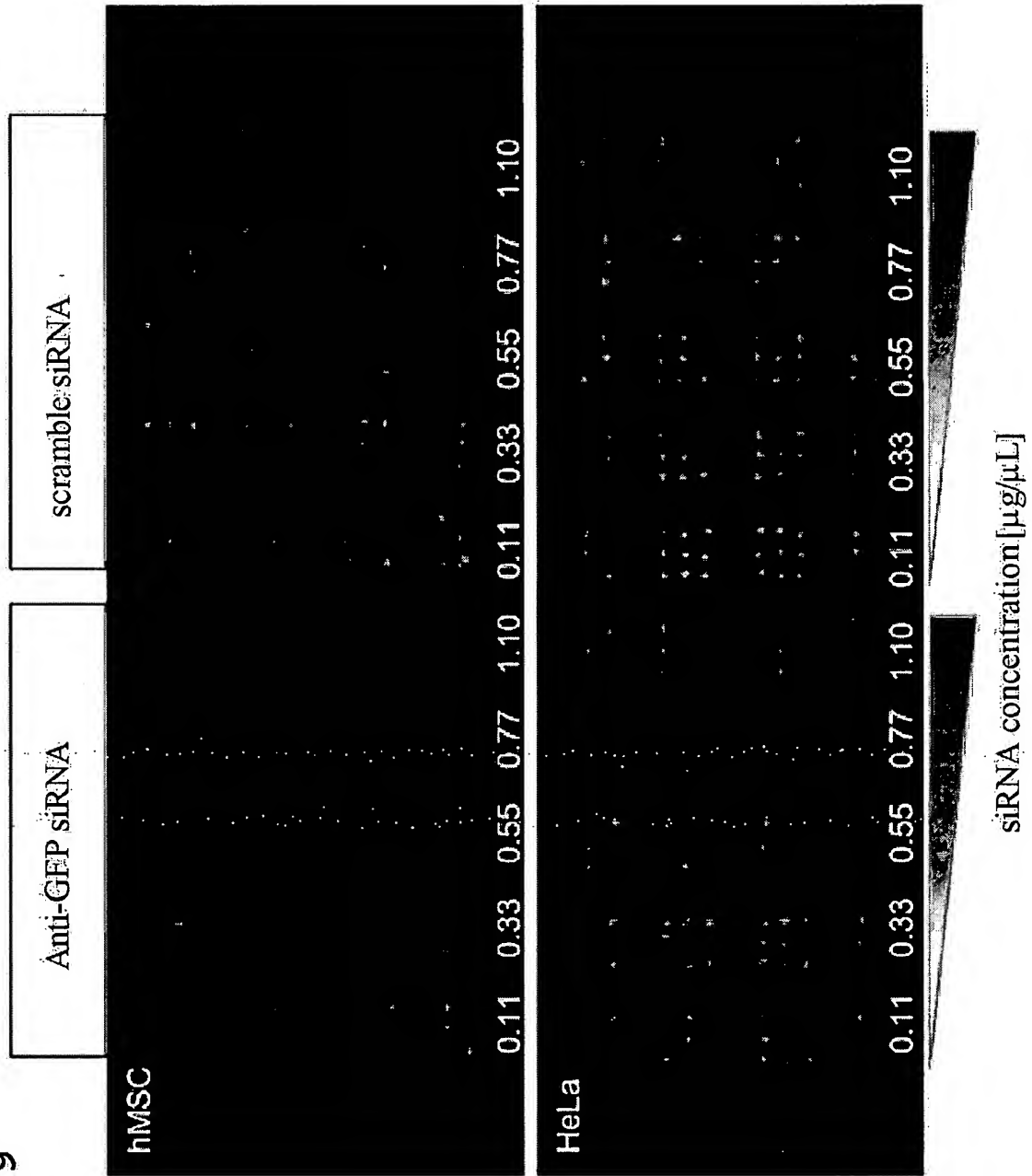


Fig. 29



Total intensity per unit grid

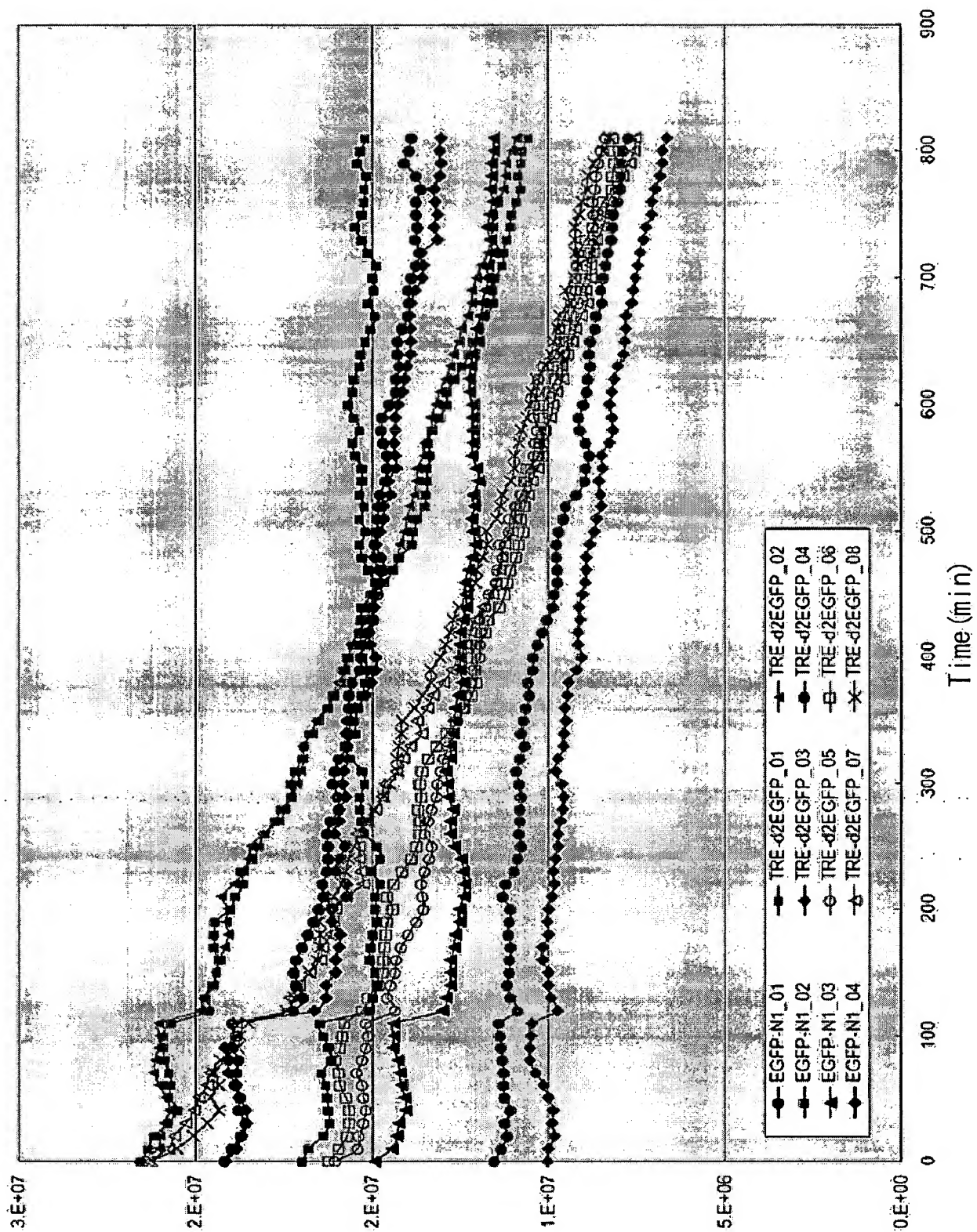


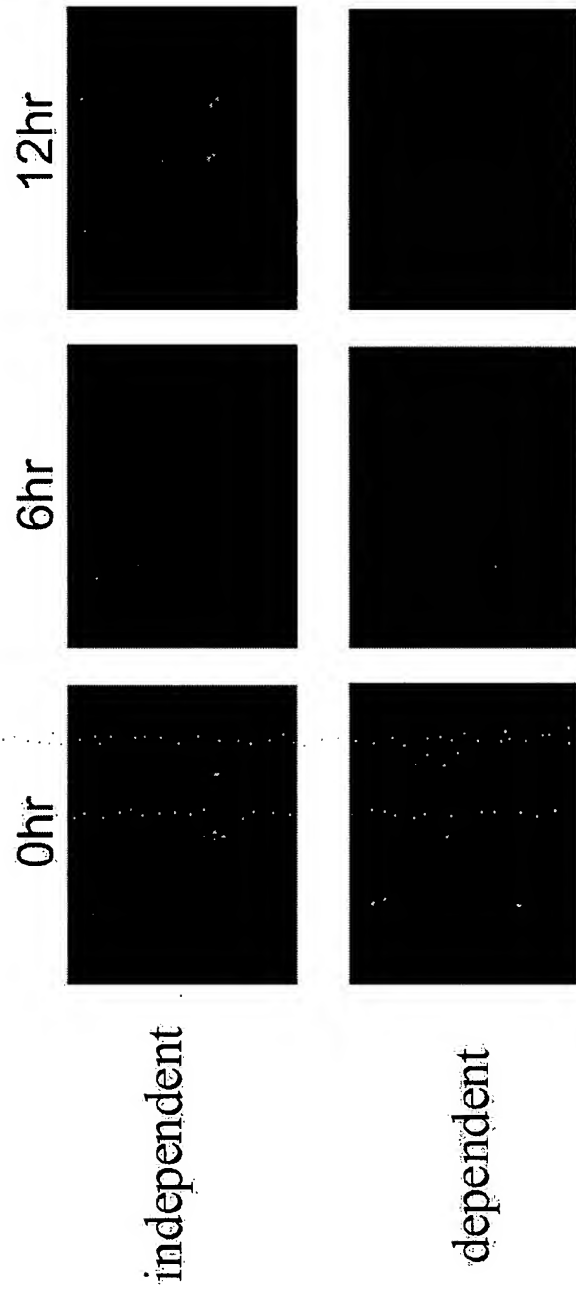
Fig. 31

Fig. 32

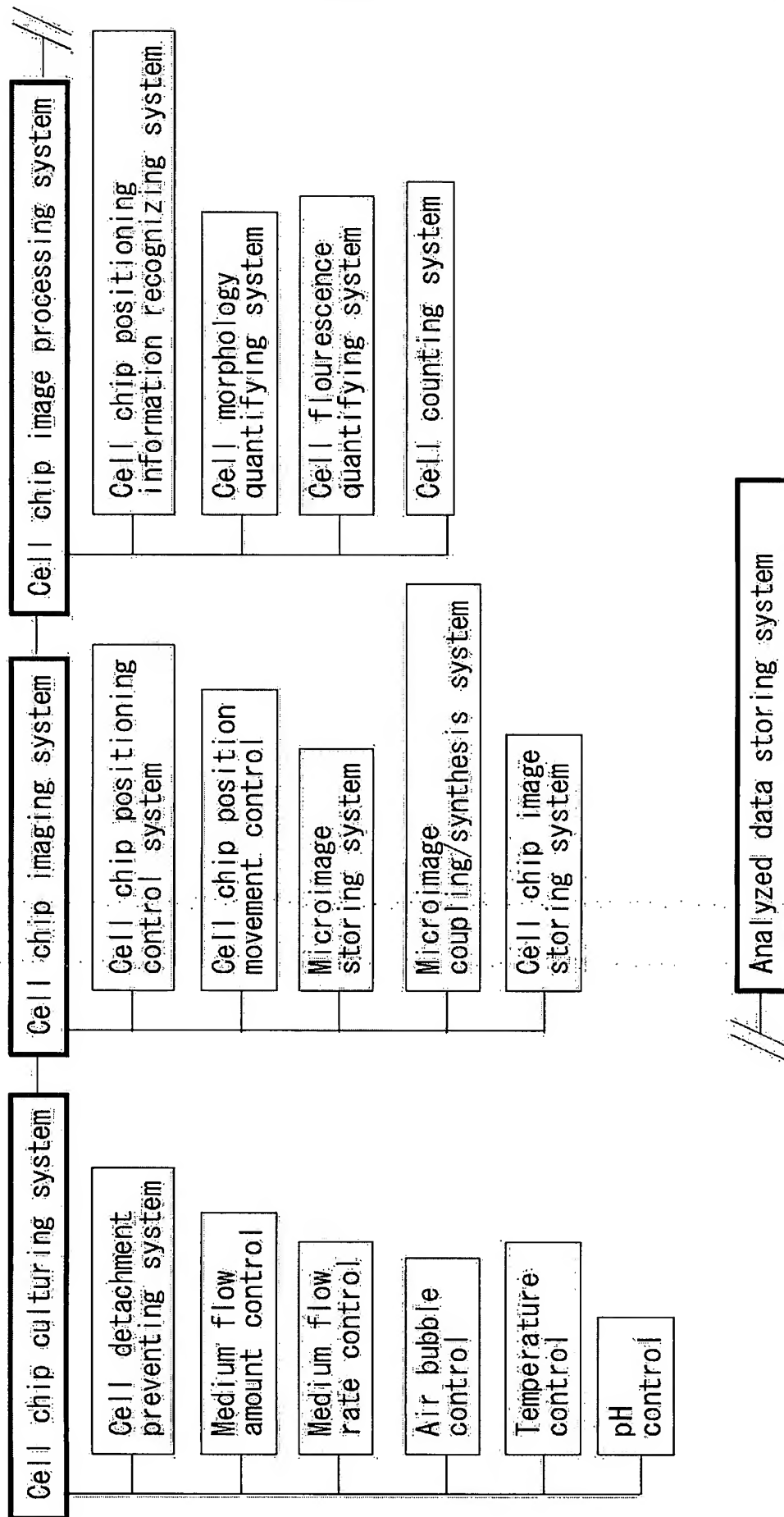
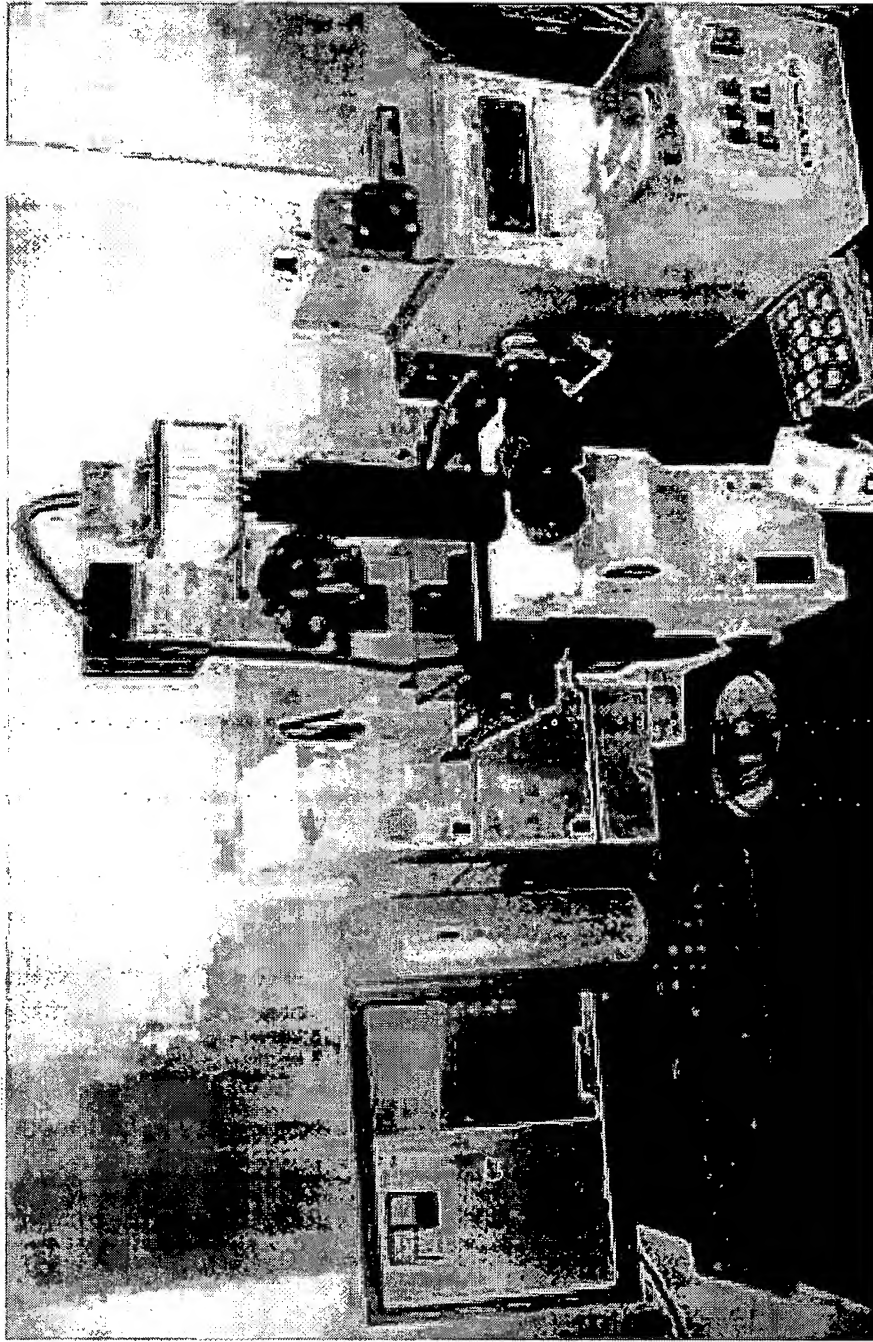


Fig. 33



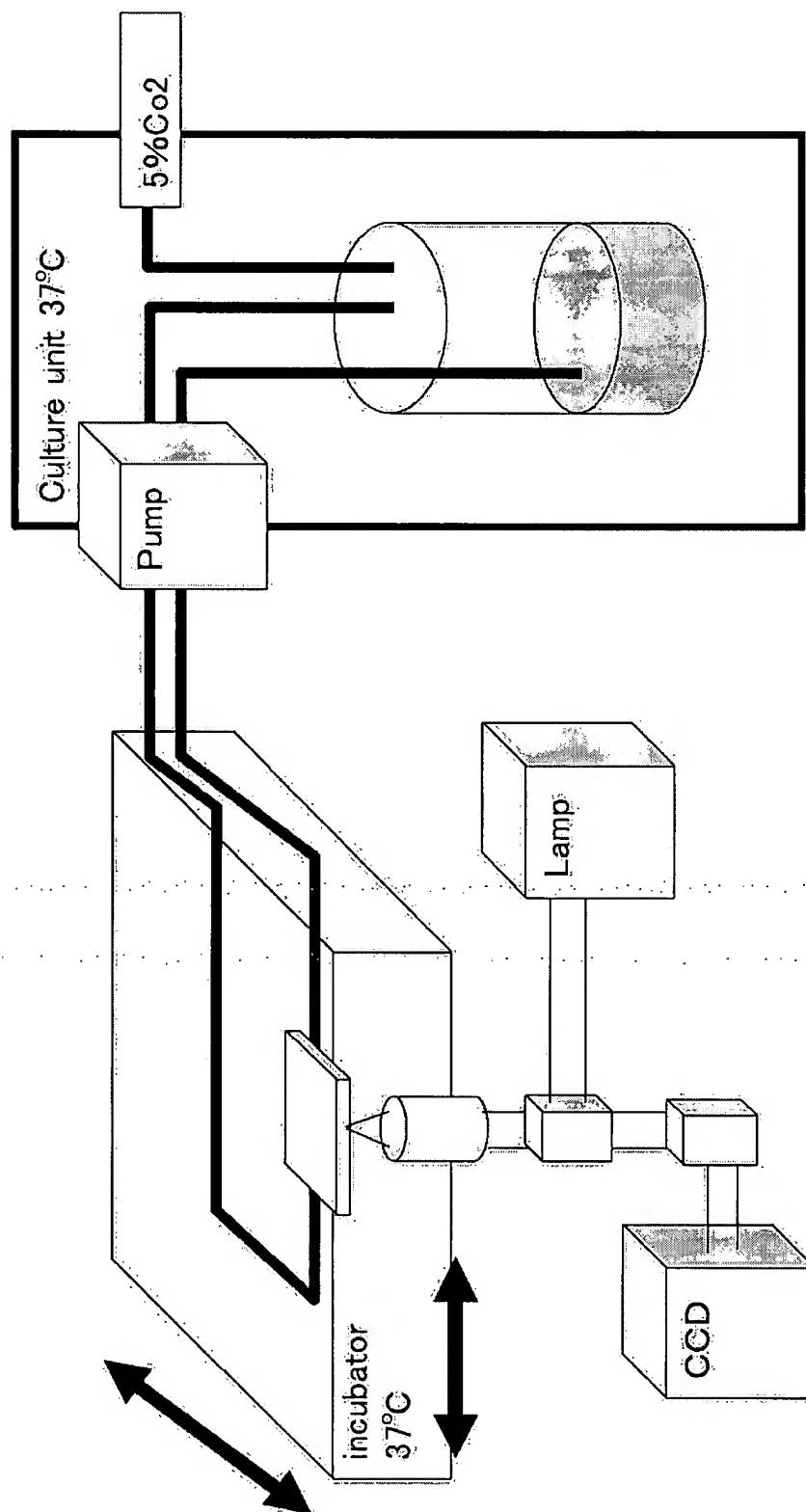
**Fig. 34**

Fig. 35

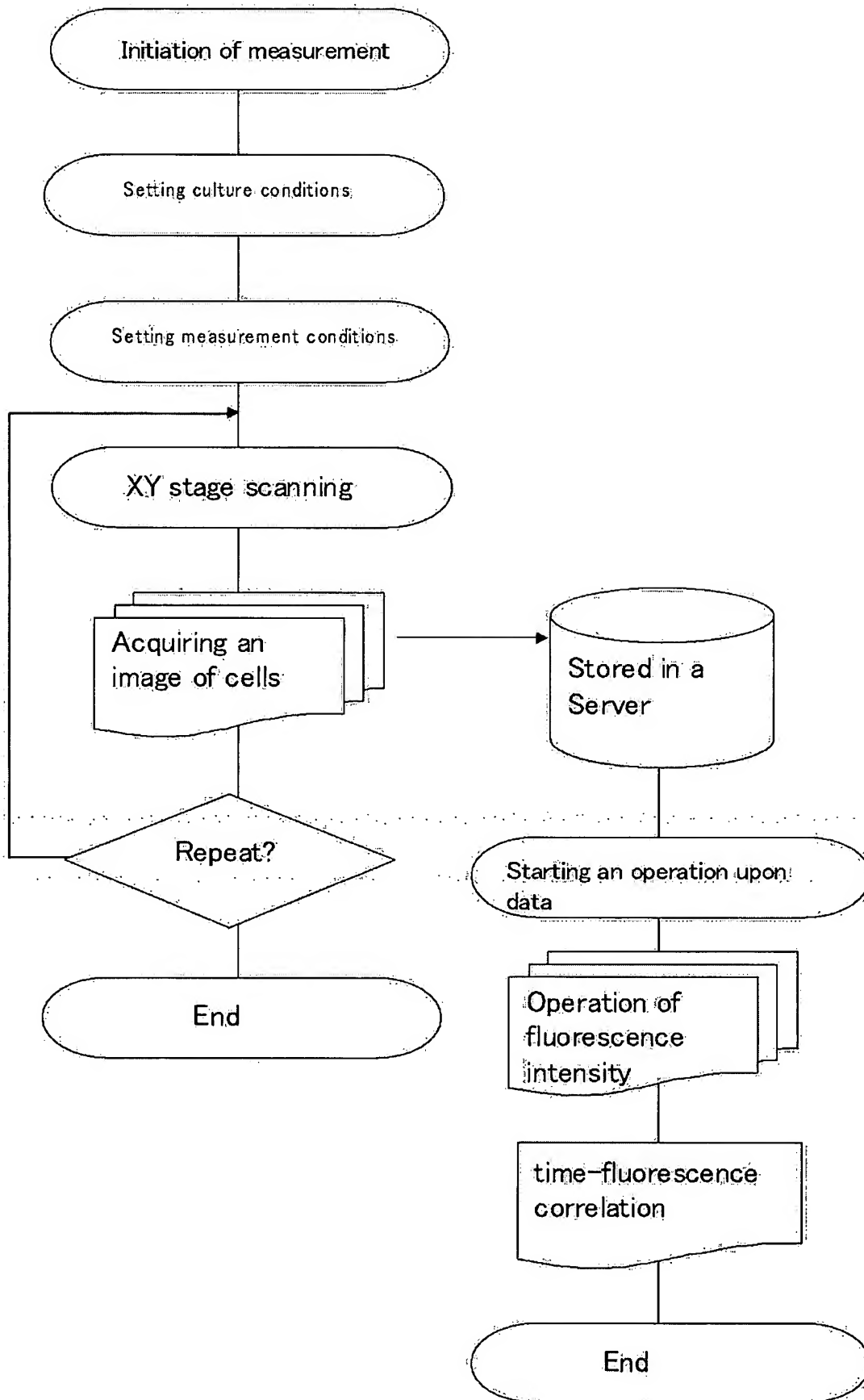
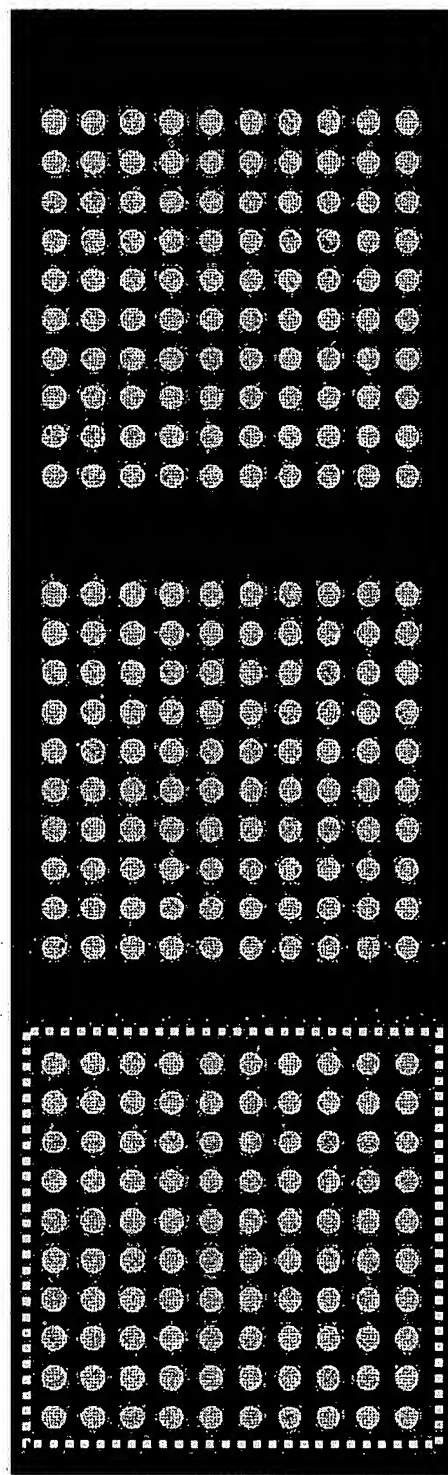


Fig. 36**Format of Experiments**

570 grid slide

Fig. 38A Results (HeLa Cell strain)

Change of Culture medium (10%FBS → Serum Free)

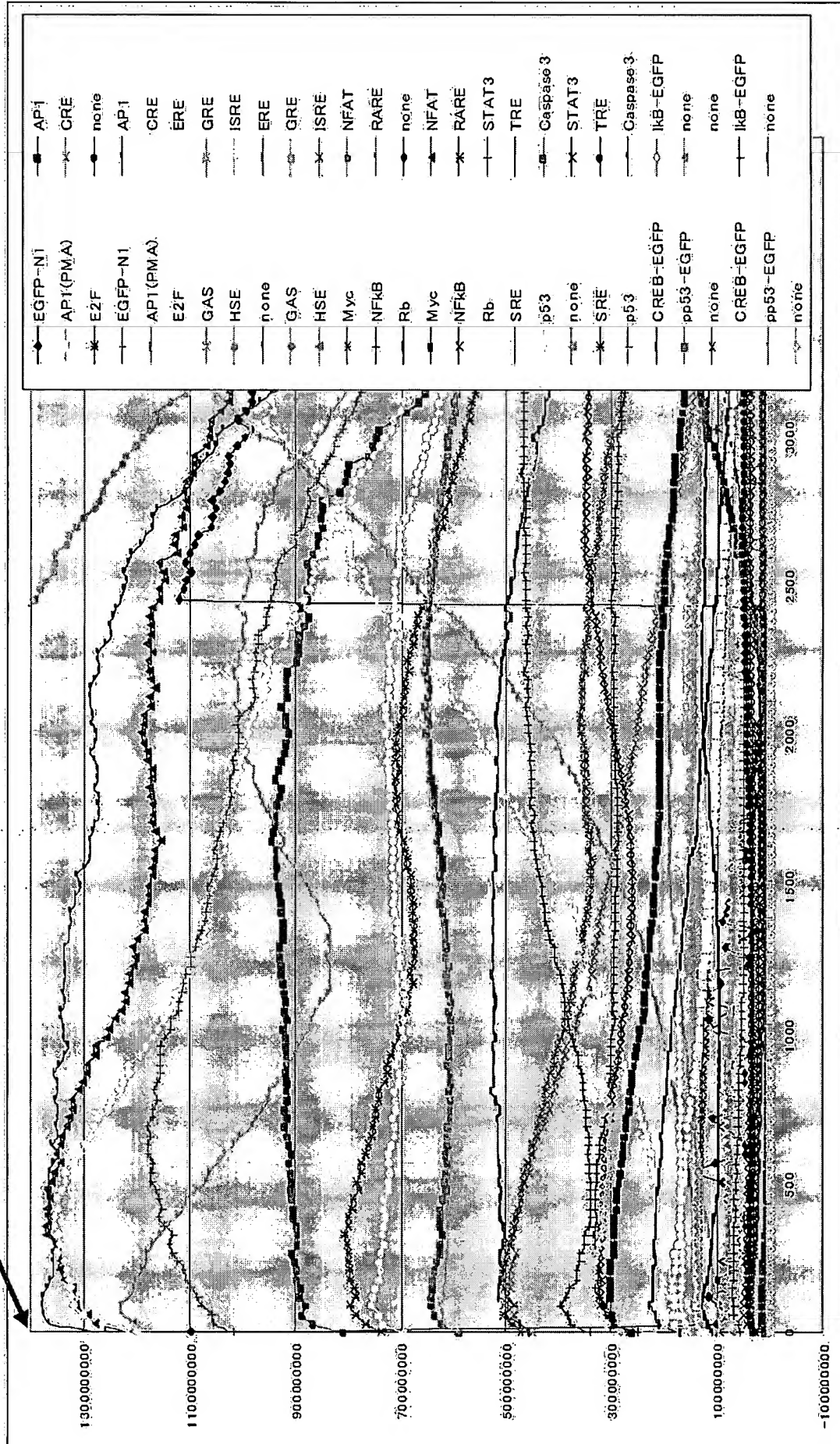


Fig. 38B

t	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18
0	131848971	107021053	119511278	115001222	60181768	72578952	24282714	103114486	1770	105322910	64948202	95113647	84294954	52418689	65019400	23145557	67732656	
30	135451985	107894767	122857833	122720368	68838381	809373487	28639215	116973498	1800	104506583	65502649	95499933	84745230	52086396	65147189	23490877	68404593	
60	1403954047	113097808	128088766	122937281	70879354	81007496	29413561	117546392	1930	100457383	65824657	96145135	87223611	5200027	65246036	23786561	68448770	
90	135127114	110683413	124428332	114848994	72795014	85346853	31632821	121715629	1850	100699193	66346743	97770910	86640901	51365574	64934118	2461842	68228044	
120	139869937	111820940	126071631	121370714	69284700	82412650	30124200	116642262	1950	100699193	66346743	97770910	86640901	51365574	64934118	2461842	67987812	
150	139231204	111510471	129776876	122160796	68744394	83797070	30032617	117512581	1920	99776591	66739357	97319114	89407593	51642720	62469426	25077546	68150853	
180	139382051	111678196	131303883	123718176	68349187	82725336	30433108	117663409	1950	101365546	67116966	96199166	88015672	50410209	62384228	24924584	69334820	
210	139391269	111727265	131442707	124048095	67783148	84584143	30145205	117950409	1960	101495049	67318419	96199166	88015672	50410209	62384228	24924584	68642956	
240	137815611	109339612	131631733	122103284	67594323	84918463	30393881	116678188	2010	102297162	67719495	97144172	90516943	50674681	62786025	25198409	68774759	
270	130815023	103815023	131301036	120422706	65310409	84722404	30378410	115186167	2040	102565681	68330733	91405421	90272600	50673733	63264232	25398343	69520617	
300	136070787	105757377	131061594	119120615	65653080	84236500	30190912	113665290	2100	103684829	68349822	91493730	90541088	50821998	63747553	25707582	69362122	
330	135868692	104685932	129864920	117626336	65582066	85930002	29954960	115452035	2100	103603280	68738288	916983261	87424808	50800841	62839807	25236523	69360502	
360	135790350	103722384	129839053	116783082	65349430	85976876	29779244	114873250	2130	102699521	69264374	96190028	88818943	49802662	62446635	24946255	69632944	
390	135270416	101882108	128508503	115832507	64254234	85982538	29209193	114513652	2160	103400704	69725079	91552320	88540037	50628141	62595780	25145669	69140934	
420	135154800	99498833	127144112	114731896	63281454	84963882	29017565	111973266	2190	103727071	70202039	94473758	88386638	50427011	62367626	25167625	70186667	
450	134348428	97508154	126472490	113945948	63383715	84963620	29278131	112634585	2220	101854014	69076097	92491372	89433384	50464098	61572266	25155570	70396049	
480	134488233	98045189	125952544	112932584	62460643	86022494	28800506	111586184	2250	102228892	70360827	91692076	95832488	50199331	61602318	25218891	70360574	
510	134828916	96601977	125741959	111088793	61644232	84821638	28190380	110427198	2280	102154875	70393537	91913003	88804552	50359943	62049361	25290410	70408935	
540	133434971	96356917	126274332	108369862	61356669	85631764	27741874	108064077	2310	100658975	69845449	90988570	87884515	47543813	6175659	25193805	70851622	
570	129825398	95140023	126679700	107770289	60527134	84186661	28164319	107550886	2340	100824095	6530456	90739489	88749169	47568142	62801005	25270120	70930919	
600	129768103	93314758	125411432	104323800	60631496	8141929	27600351	106741685	2370	100707159	65040867	91263725	89712153	46615016	62521334	25063903	70941561	
630	12977116	92430983	125047544	104772646	59049329	83202321	27306758	105614103	2400	100650318	65537842	90322183	85526685	45872070	63752582	25150759	69103213	
660	128163514	96032772	124870358	100972677	59673914	84597892	27217770	103993748	2430	100248217	66973986	90476617	86380010	43617465	63225041	25160808	68352523	
690	125801897	89604991	125576533	101712740	57687867	84150812	26929824	103170500	2460	100388146	65160183	89505939	86410517	43848201	63071497	25605133	70234853	
720	125325415	87903198	125064384	100244137	58864582	83836324	27008980	103722366	2490	101139336	64734324	88491643	86669978	43639965	63347304	25324382	67741821	
750	125367660	87057412	120719703	986212103	56207794	82990984	27030884	10163237	2520	100774965	65277833	88252551	86380010	43617465	63225041	25160808	68352523	
780	124178704	84808149	121110019	96045385	55741086	81594786	27030884	101452289	2550	98877486	64599823	87124517	85690599	43415603	63663380	25166222	68039842	
810	125262336	84694968	121178280	94346438	57072256	79976718	26902374	98411088	2580	98777795	64599456	86723267	85502580	37762137	64072719	25316796	68207253	
840	124382842	82265573	119448861	93562312	53592563	80602389	2627324	98445126	2640	97455822	64371955	84530365	85594440	38366987	63736070	24740362	67169360	
870	124382842	82265573	119448861	93562312	53592563	80602389	2627324	98445126	2640	97455822	64371955	84530365	85594440	38366987	63736070	24740362	67169360	
900	121861387	80320204	117653941	90175926	55586195	78570864	26249152	95557166	2670	96298950	62619278	81892172	84303073	38589094	63015466	24326059	66894843	
930	121000814	78935834	117857470	86789435	55204797	77613609	25898646	94684861	2700	96790739	61938875	83084975	84157193	38492352	61971793	24380118	66189817	
960	121217439	78921664	117498607	86714510	54690778	77950176	25684731	92473467	2730	96927124	62032720	81973219	83970747	35822973	61773658	22166568	63947493	
990	119698959	78367429	115712520	84011164	52725908	75918983	25637336	91872351	2760	95160617	61348586	81896864	83815693	35652484	61181782	22506687	63444596	
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1050	120428518	76724895	112303331	80564403	52301600	75901401	24803954	98282217	2820	93315888	60873501	80815892	83051319	36021177	60428169	22068869	6347493	
1080	117339982	7545791	111254118	79894027	52137789	74234664	2474384	88199600	2850	92786669	61023543	80110815	81908528	36058633	60542073	22181822	62331729	
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1140	113373592	75448909	108913631	77557038	51819351	73183376	24515029	85878803	2910	90999537	61440342	78170560	78783029	35476953	60291853	21451284	61947408	
1170	114665833	74072956	10900816	76608585	51022260	73357873	24387934	85170827	2940	90203892	6123644	78621644	79299773	35292931	59481344	21242055	61783759	
1200	114132828	73690460	105640142	76396837	51796705	71745699	2434865	83411084	3000	89291717	59522577	77093539	77678630	31898587	59132020	20063381	61054815	
1230	11009052	71889671	103149178	74847542	52430832	72609640	2434763	81657131	3030	85965320	57138722	74497772	78601355	31903865	58227651	18884521	60029287	
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1320	108827085	68975824	100462007	75088530	524399112	69917340	23795008	79150373	3120	83289744	56064765	73214703	70998968	30276813	58540803	18143784	58444721	
1350	108724271	67640615	98977458	74444528	51344046	70253547	23677421	71528309	3150	82387342	55380177	72158575	70766917	30484186	57133900	17538418	57936605	
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1470	104424521	65858943	94511582	76305188	51608772	68453682	23527429	74917093	3270	78124334	53914753	70276638	67532930	262957104	52748508	16098944	50750707	
1500	104459292	65256092	94201167	765114580	52136960	67873825	23724733	74352733	3300	77913928	54325186	70928785	68194432	2800377				

Fig. 38C

1	0	133326219	103191671	121331814	119456098	65650027	76613695	26347195	111362893	11890	102037194	653374738	942423053	860012672	51913697	63868877	23970045	68877355.2
10	135226201	106963030	123405608	119374883	66922317	78533716	27765405	27765405	113649929	1920	101985704	564781668	94763405	860019522	51794076	63688478	24115988	68787346.1
60	136634878	110642831	125098136	119812134	67830100	80176951	26834431	26834431	115430661	1950	101959922	56610317	947945939	871622544	51549697	63327902	24269173	6872167.4
90	137634325	111139735	126459159	120096092	68423153	81564703	29610833	29610833	116470156	1980	101953382	567919129	943293545	876777915	51478904	63386641	24427525	68704067.6
120	138258420	111276850	127070442	120370442	68746627	82172400	30144292	30144292	117418331	2010	101964646	569565171	943361587	881473555	51280154	63264128	24588728	68710406.2
150	138652928	110597932	128378600	120588224	68840441	83677894	30478227	30478227	117936144	2040	101928337	571204522	943383554	885598168	50730332	63139332	24750353	68741858.3
180	138775833	110488748	129011778	120711824	69140559	84447498	30850372	30850372	116086135	2070	102020480	572728676	943899143	889203354	50793271	63011969	24809881	68793855
210	138899141	109750534	129474724	120712010	69479337	85051795	30893331	30893331	117983436	2100	102053736	574284992	943731898	892241354	50502770	63000386	25064626	68861625.4
240	138438971	108844889	129769896	120670660	69804855	85508266	30634986	30634986	117617159	2130	102088436	575637146	943274416	884696016	50179610	62943585	25211970	68940421.8
270	138086172	107782858	129930464	120726186	67182272	86033124	30489164	30489164	117187189	2160	102116647	576805621	942466947	886557018	48821078	62800226	25349192	69024667.4
300	137061927	106619276	129928381	119787300	66994988	86839314	30005979	30005979	116592787	2190	102132283	577748202	942153521	89476365	49432697	62868827	25473597	69169307.5
330	137047527	105364056	129747336	119139215	66340913	86140361	30071638	30071638	117825039	2220	102131441	578424584	939593765	89247768	48909155	62847768	25582536	69180156.3
360	136412442	104046021	129831204	118318040	65637613	86154308	29810797	29810797	114936691	2250	102109176	57879539	937405868	896543818	48549506	62835292	25673434	69261876.6
390	135720829	102084413	129580158	117328032	64900701	86080328	29533914	29533914	114096666	2280	102060665	578828683	934691502	88801972	48057000	62829515	25743832	69318804.9
420	135010122	101294333	129281693	116178667	64142098	85940010	29520070	29520070	113140344	2310	101981345	578488448	931339256	889618805	47531191	62822427	25791415	69356557.1
450	1342650078	999924324	128913430	114874162	63373115	85733299	28965164	28965164	112140574	2340	101850762	577750756	92750362	889226640	46979307	62829907	25814052	69370359.2
480	133468350	98466311	128479815	113432961	62663143	85470847	26887390	26887390	111107464	2370	101712830	576588821	922299465	893091213	46383379	62831726	25809828	69355507.1
510	1327003005	970838774	127984382	111867239	61840119	83759391	28417482	28417482	110049049	2400	101513786	574984788	917850471	890323413	45784013	62823184	25777081	69310421
540	131901809	95698077.6	127429994	110192588	61090688	84803729	28158941	28158941	108971545	2430	101272620	573524999	912084356	887096115	45116634	62827107	25714425	69228636.2
570	131094489	94323353	126818038	108425539	60360346	84414787	27913243	27913243	107819668	2460	100978327	570401422	905702725	86333756	4443365	62815617	25620769	69168152.3
600	1302607863	92980837.6	126153610	1063803274	59633365	83991683	27681023	27681023	105776869	2490	100634556	567411955	898726061	879231847	43740638	62794843	25495499	68948078.9
630	128629959	90563736.5	124667131	102743217	58324252	83065983	27256341	27256341	104547688	2520	997822167	565038293	883119032	869033798	42284323	62714949	25148478	68468099.3
660	1278213447	890978118	1238560039	97704627	57706273	82570713	27002301	27002301	103424028	2550	99272216	565723216	874579641	864349603	4155163	62650703	24922726	6819441.9
690	1270192971	87981718.7	122956858	96811816.4	57122376	82679074	26879074	26879074	102295340	2610	990878208	564854368	85632894	84019124	402460903	62460903	2493470	6745461.4
720	126148105	86659707.6	122070923	968531899	56573101	81530654	26705076	26705076	101161993	2640	990878208	564854368	85632894	84019124	402460903	62460903	2493470	6745461.4
750	125091409	85480785.8	121170611	94922220.4	55697876	80390985	26338677	26338677	100524197	2670	994874513	564038233.8	84676458	84632033.6	39250205	62330686	24683709	67018015.6
780	12455222	84339775.5	120436847	93031755.5	55579736	80441115	26378978	26378978	98882119	2700	994874513	564038233.8	84676458	84632033.6	39250205	62330686	24683709	67018015.6
810	12406332	83222095.1	119122281	91196056.2	54712680	79831553	26072397	26072397	97339333	2730	995120165	56281701.8	82718376	813275567	37722868	61987702	23388575	65011035.7
840	123616332	82322095.1	118062921	89478651.5	54176800	78631859	25827397	25827397	9655970.8	2760	995080610	56224151.8	81354906	36972869	36972869	61770965	23083366	65446006.2
870	122762441	8126372.7	117062921	87478651.5	54176800	78631859	25827397	25827397	9655970.8	2790	942272704	516081762	807634322	818425454	36238387	61521651	22810339	64843864.3
900	121903707	81084922.8	116898907	87778653	54351842	78749099	25923176	25923176	95432703.2	2820	923329257	609281589	798123454	810856833	35524322	61238253	22196019	64208152.5
930	121040552	80061699.6	115867492	8613709.3	54010186	78176098	25775251	25775251	94279822.6	2850	923329257	609281589	798123454	810856833	35524322	61238253	22196019	64208152.5
960	120174535	79068745.3	114767016	84070268	53708498	77600784	25627808	25627808	93119267.3	2880	914338017	5965493.2	780133309	79306890.2	34113473	60564651	21344476	62832113
990	119303669	78106238.4	113653372	83241317.3	53422722	77024476	25480248	25480248	91981241.6	2910	904528043	590709007	771844659	766852689	33943005	60173030	20910815	62140516.2
1020	118432117	77144787	112491664	81957995.1	53174591	76448397	25332202	25332202	90804226.4	2940	894579733	58479693.6	764140567	778426593	32952835	59744580	20775759	61412567.4
1050	117520137	76273908.1	111347462	807921821	52955157	75873133	25183327	25183327	8940970.2	2980	89452216	57010506.4	75769119.5	76787598	32199767	59279536	20048385	60672749.1
1080	116590065	75405108.5	110205246	79747724.5	52763051	75300178	25043206	25043206	88500526.7	2970	89452216	57010506.4	75769119.5	76787598	32199767	59279536	20048385	60672749.1
1110	115823268	74568783.9	109071369	76872721.2	52366847	74730047	24884839	24884839	87350150	3000	87451152.5	57375750.3	750749737	76909362.2	3188176	58779127	19620581	59925304.4
1140	114962134	73767367	107957079	7602060.9	52455075	74164589	24715030	24715030	8623363.1	3030	86454522.9	56431495.6	74029165.4	74257595.2	30994407	57673615	18816332	58422128.5
1170	11409046	72996981.8	106849447	73632469.1	52352222	73603836	24587567	24587567	85104885.7	3060	85464522.9	56431495.6	74029165.4	74257595.2	30994407	57673615	18816332	58422128.5
1200	113260548	72263491.7	105727079	76817562.0	52238745	73049006	24440699	24440699	8399812.3	3090	84493751.1	56030453.2	73815454.1	73307368.1	30612087	57081417	18431873	5767187.4
1230	112474088	70506280.6	103710023	76930388.8	52161067	72501013	24297256	24297256	82912576.6	3120	83544893.6	55600153.2	72873933.1	72338189.1	30270585	56459304	18062398	56924197.8
1260	111624088	70506280.6	103710023	76930388.8	52161067	72501013	24297256	24297256	82912576.6	3150	82621616.7	55316090.3	72873933.1	72338189.1	30270585	56459304	18062398	56924197.8
1290	110829889	7024834.6	102734814	75968807.8	52058665	71429163	24027393	24027393	80205816.4	3180	81720844.2	55131043.4	72719568.1	71036282.2	29693965	55352522	17304962	55430643.2
1320	110056939	69702872.7	101802610	7581188.1	52039683	70907115	23894766	23894766	78950726.2	3210	80561562.7	54952982.4	72482665.6	69312216.6	29440689	54484494	17031478	54684098.8
1350	109308810	69161384.8	100917284	7582309.5	52013859	70395157	23774325	23774325	78810151	3240	80024918.6	54738332.9	72236681.9	68277019.6	29213009	53810314	16701373	53923249.8
1380	108587428	68661197.6	100062776	75993309.5	52012570	698995269	23662940	23662940	77661890.2	3270	79213741.7	54617238.9	71919688.2	67236160.5	28982477	53140828	16366779	53141062.8
1410	107895990	68203108	99300549.1	76217580.73	52019039	69407253	23561915	23561915	76950726.2	3300	78422153.3	54487733.5	71554003.1	66198871.3	28139222	52485292	16017193	532

Fig. 38D

[illegible]

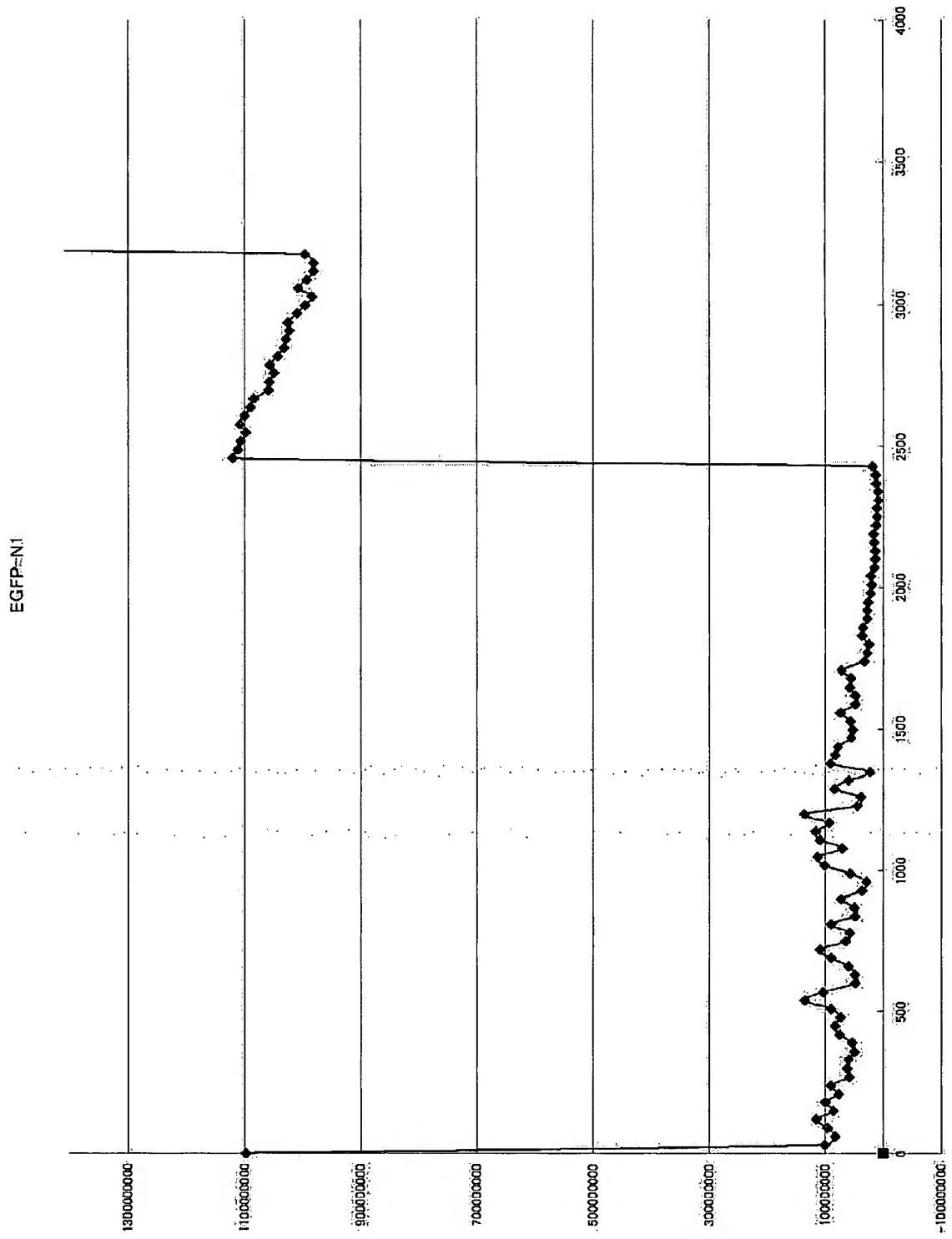


Fig. 39-1

Fig. 39-2

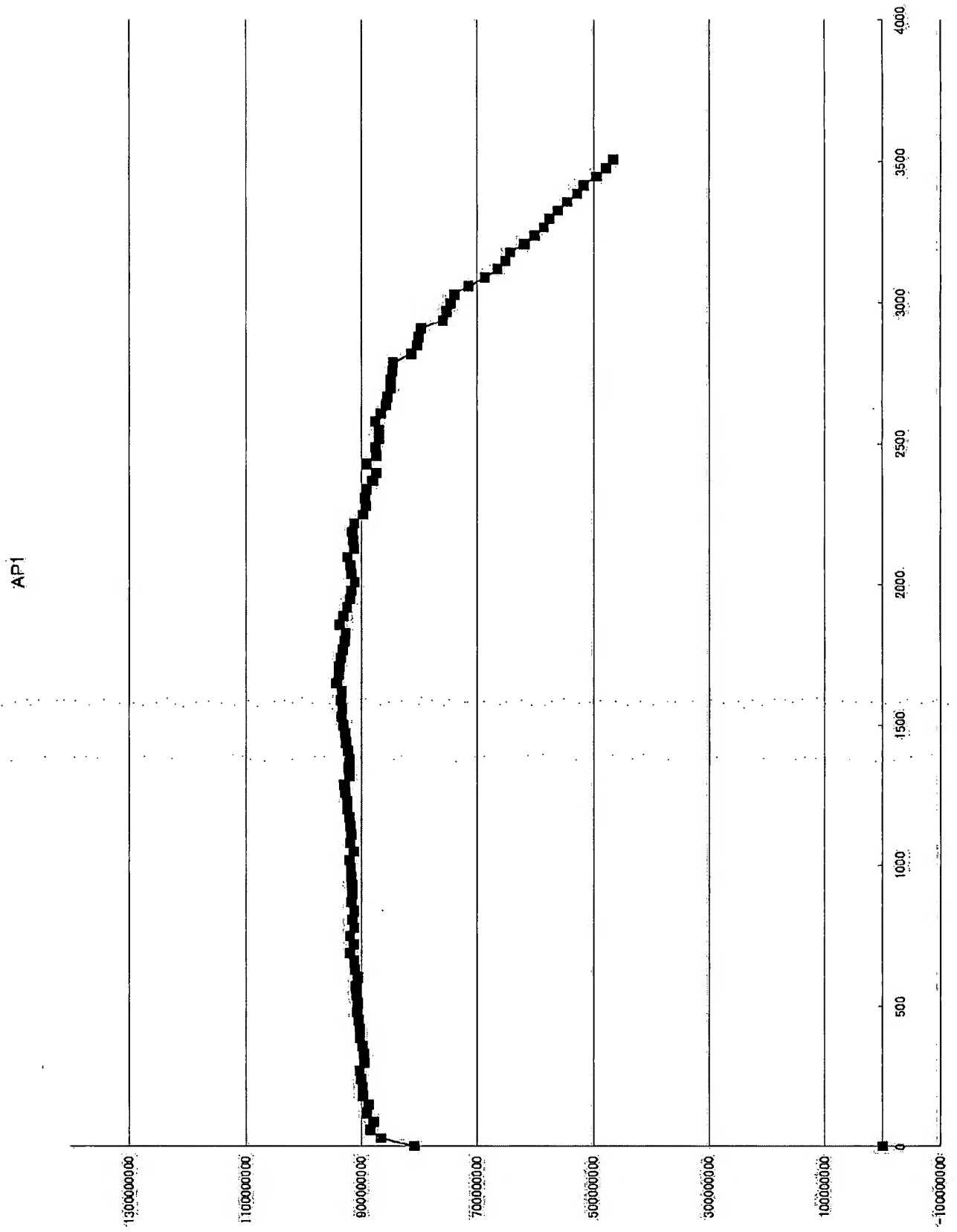


Fig. 39-3

API(PMA)

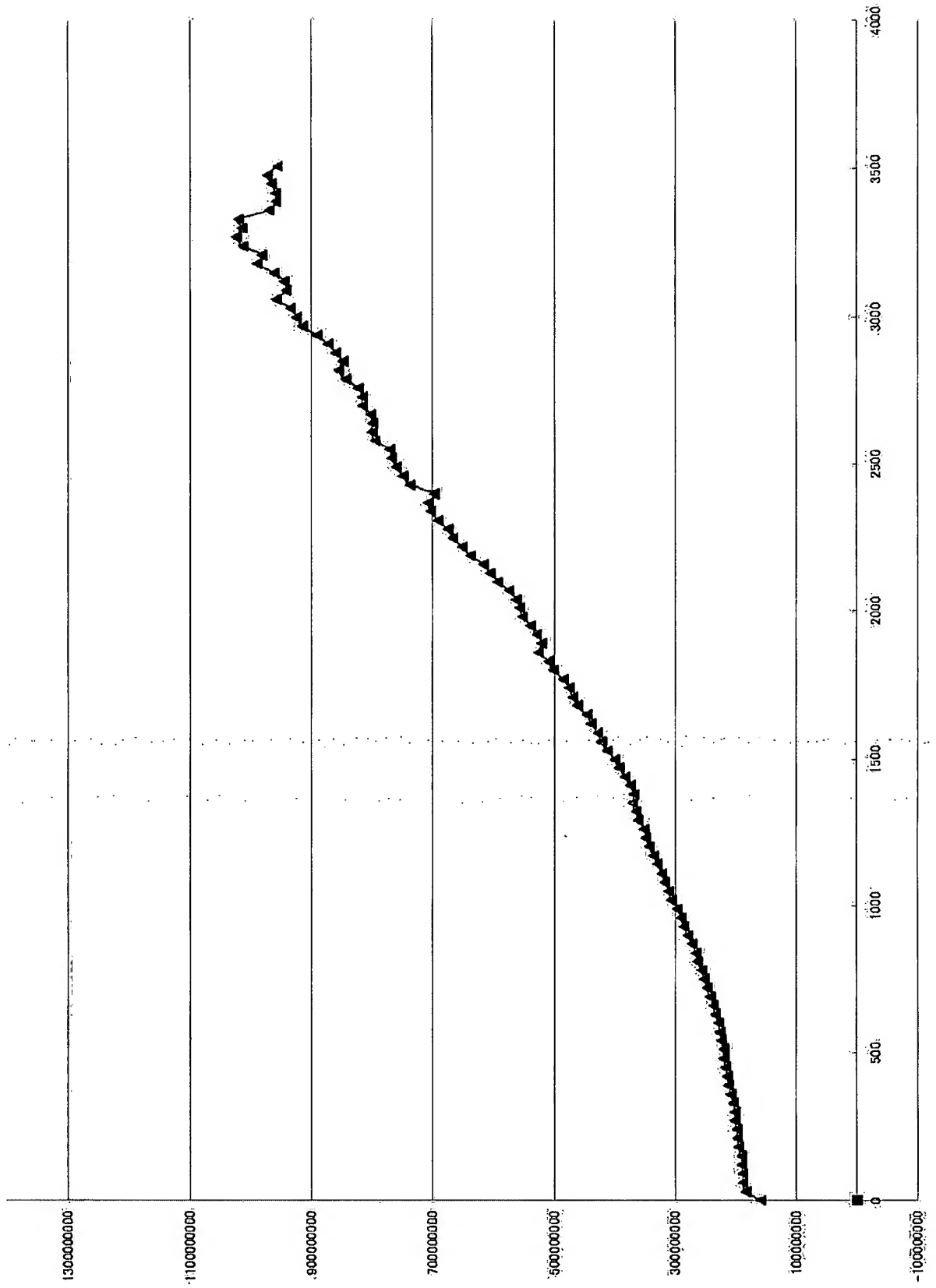
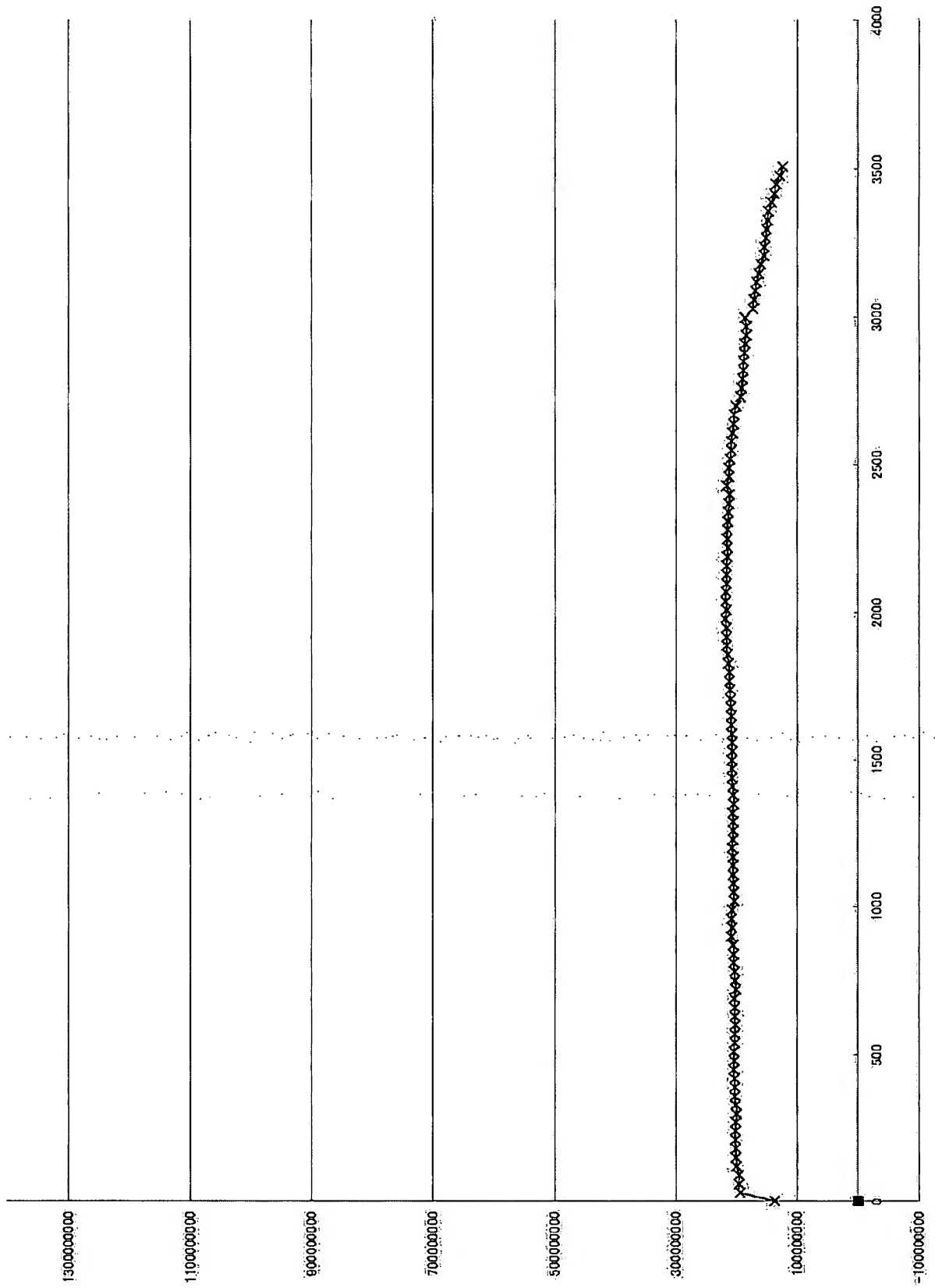


Fig. 39-4

GRE



E2F

Fig. 39-5

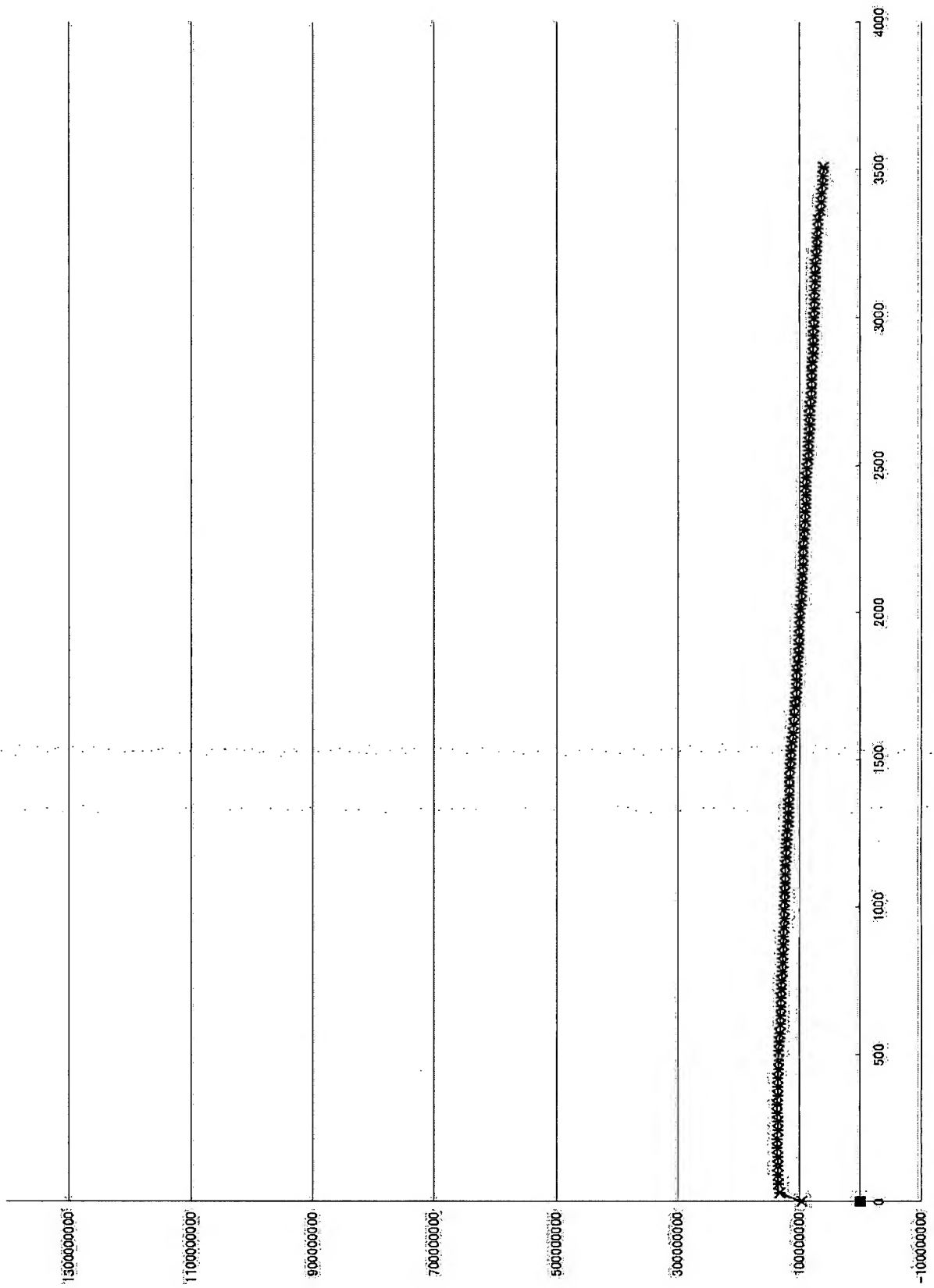


Fig. 39-6

EGFP-N1

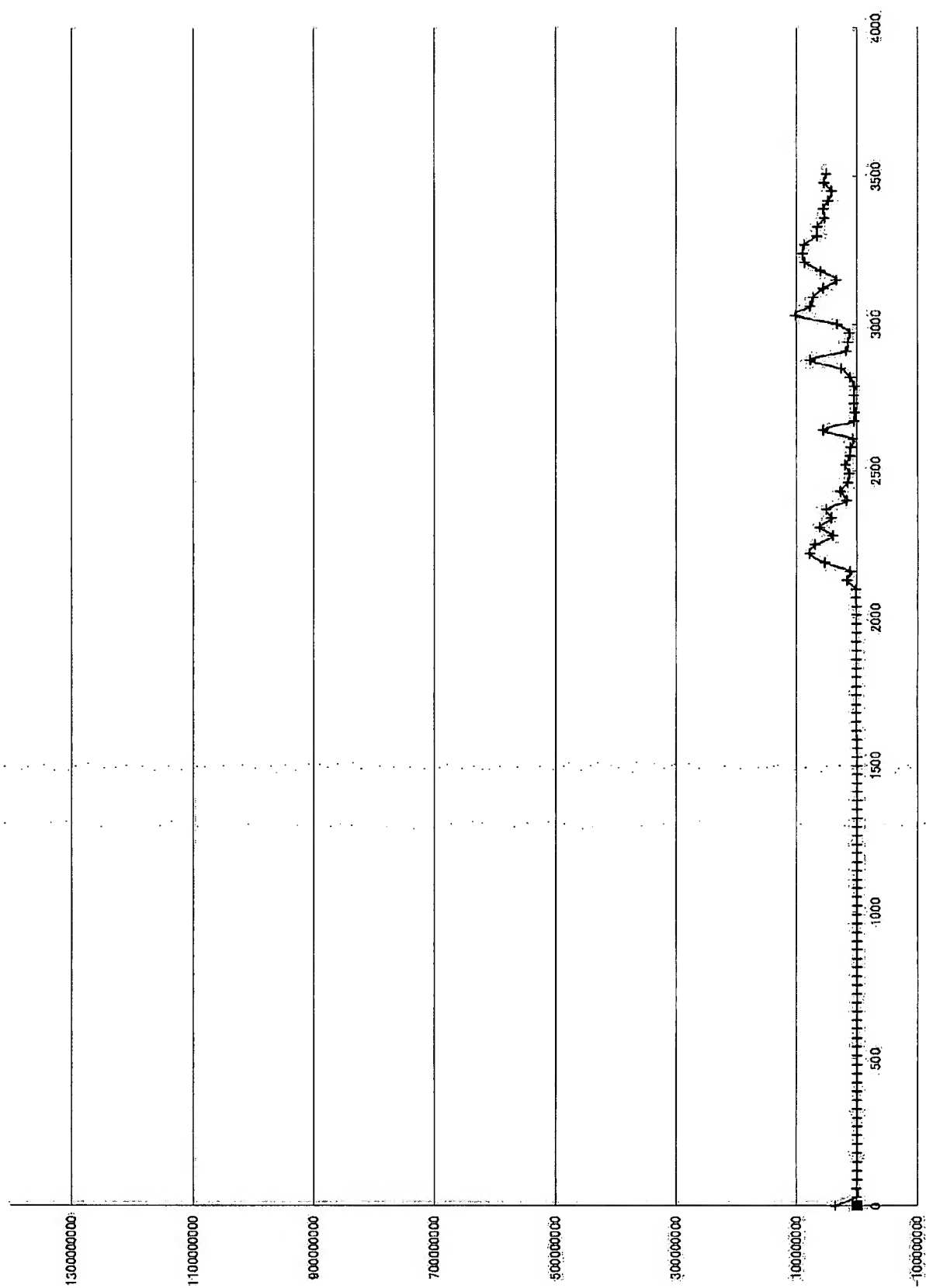


Fig. 39-7

none

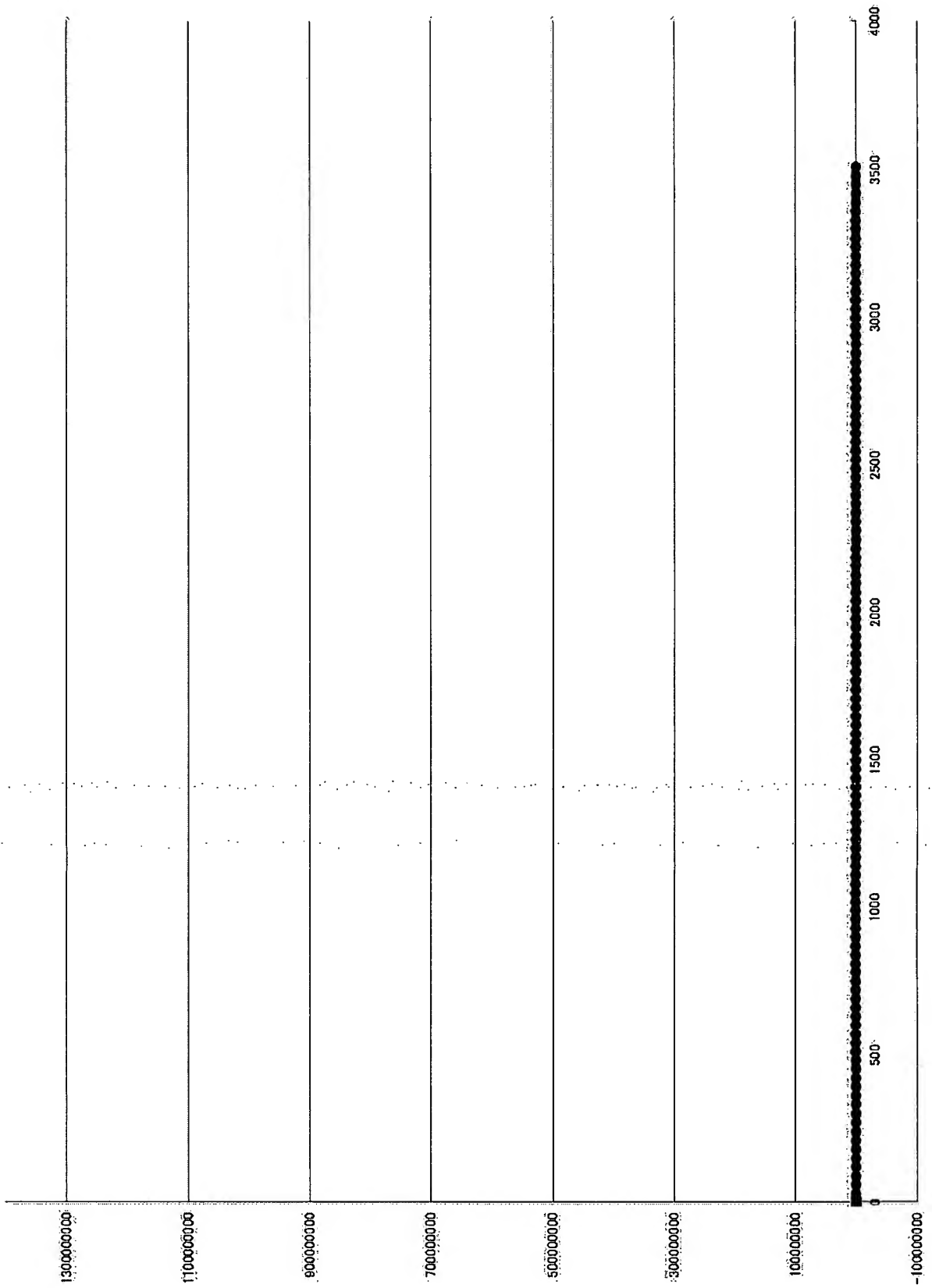


Fig. 39-8

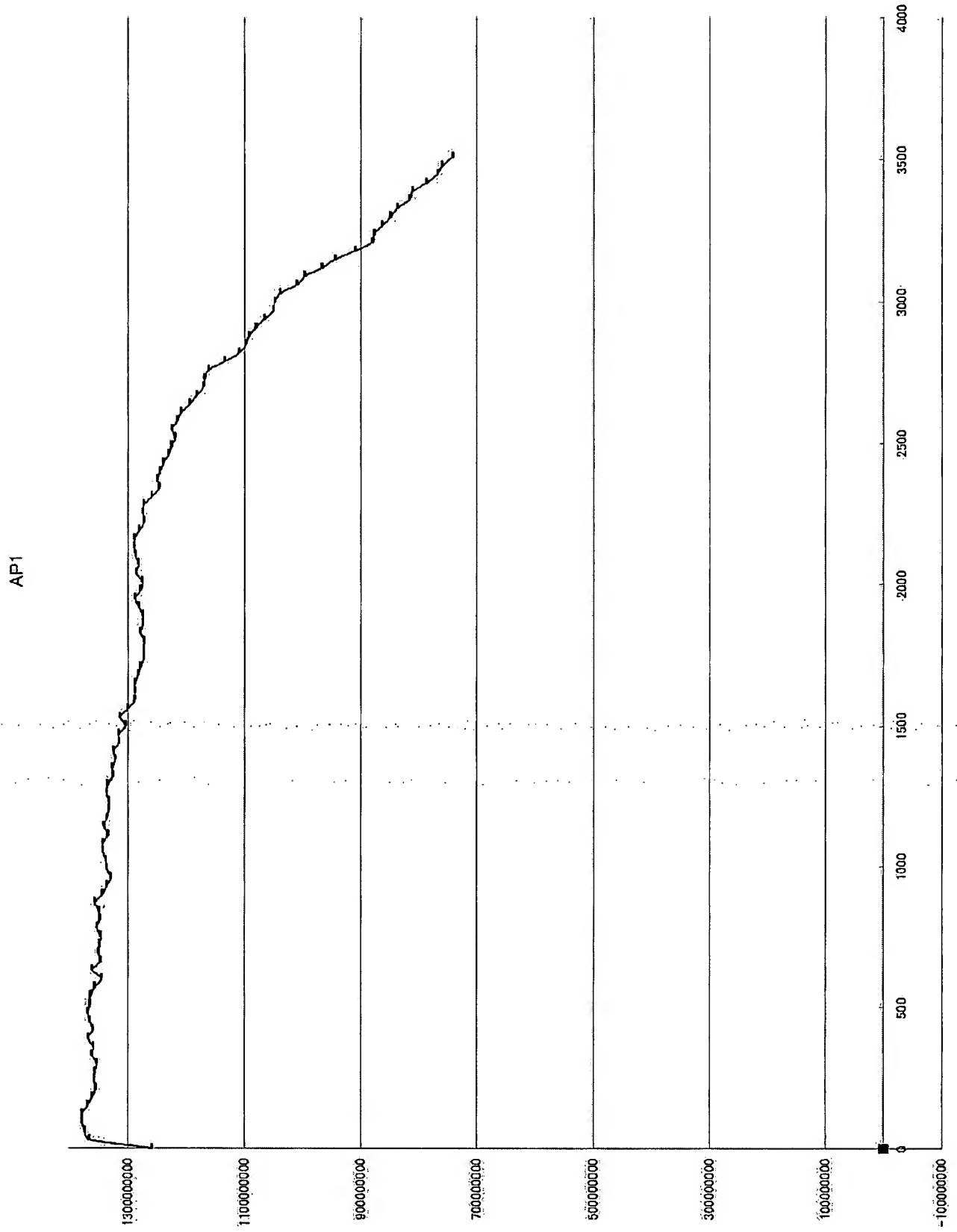
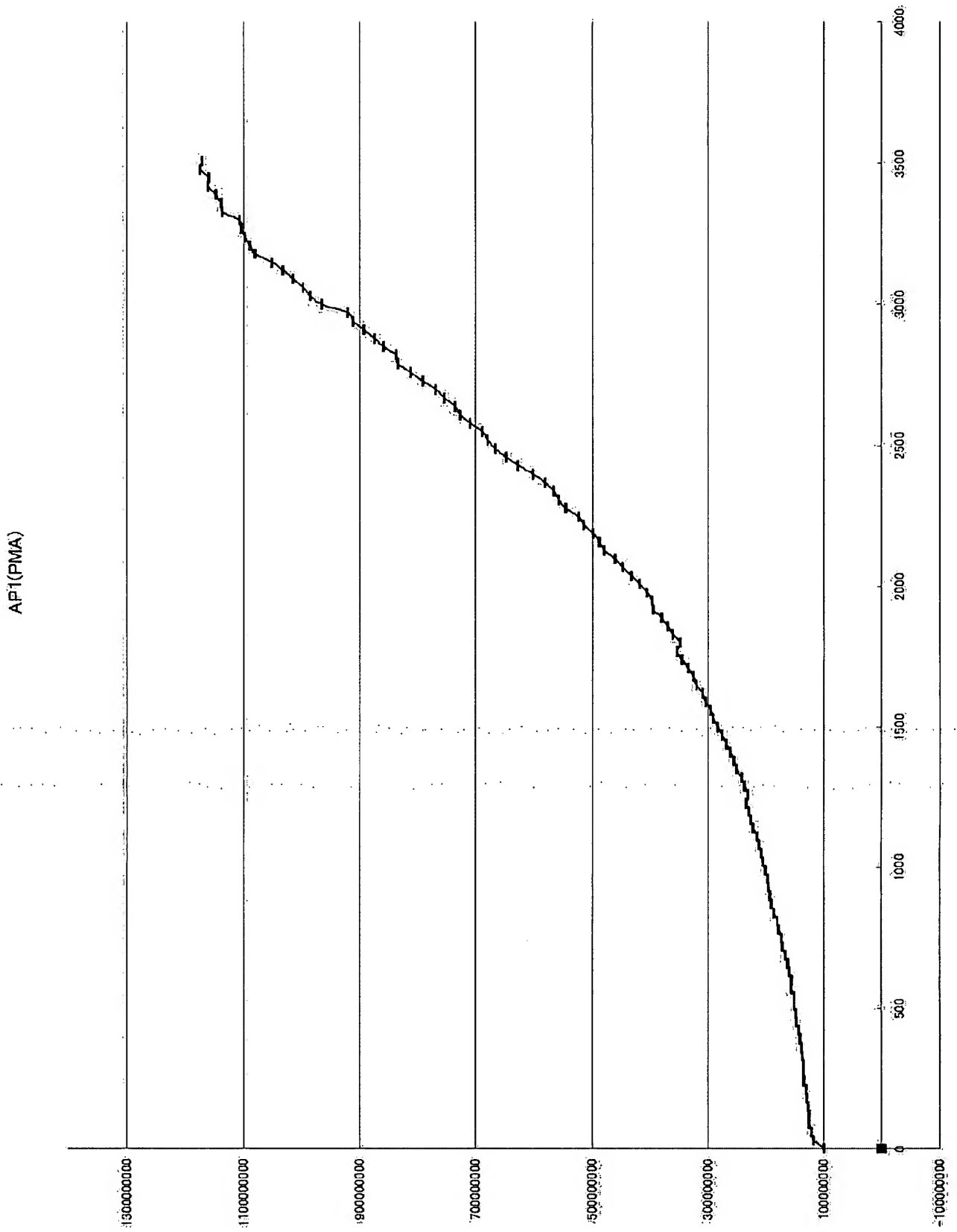


Fig. 39-9



CRE

Fig. 39-10

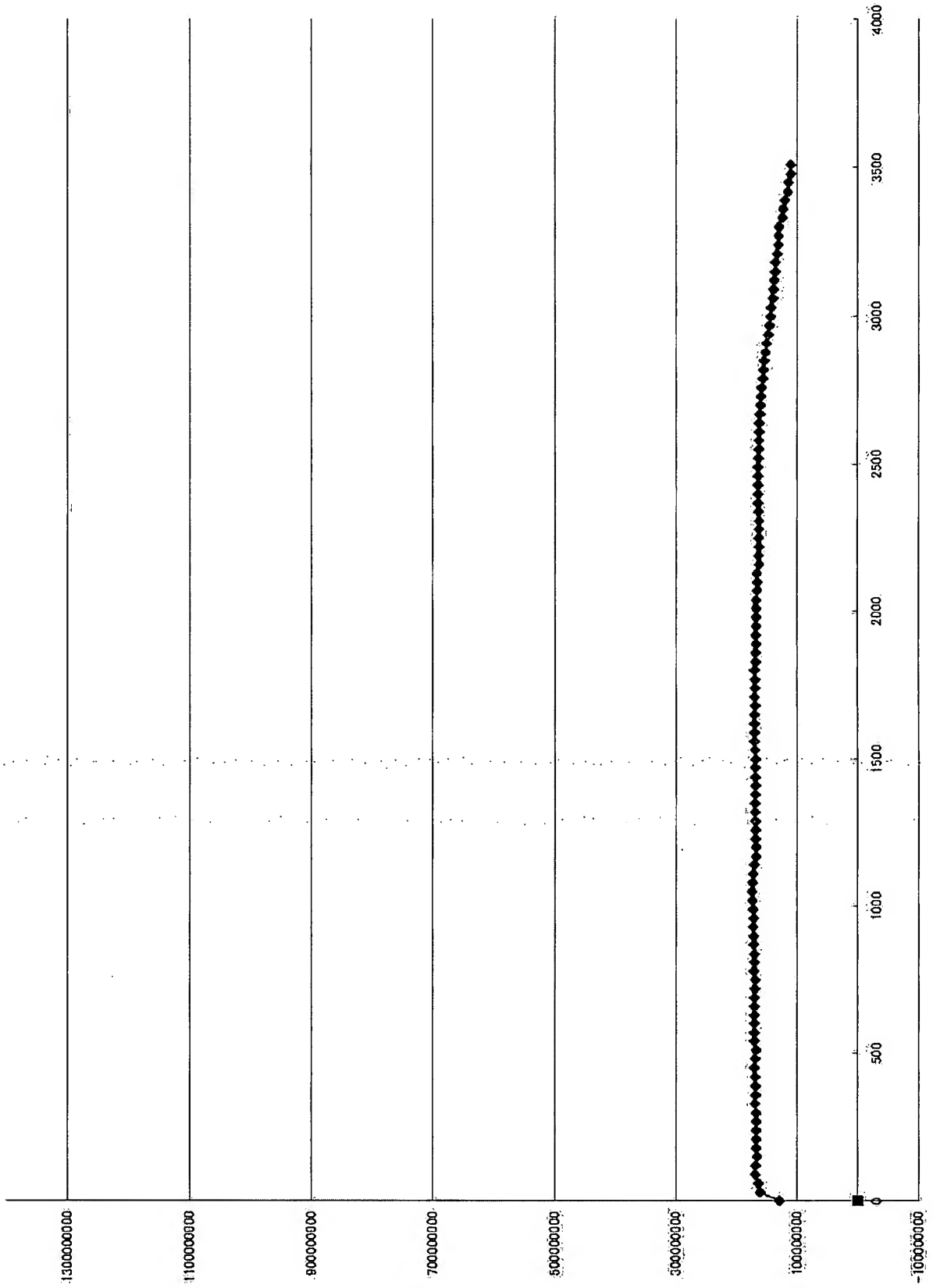
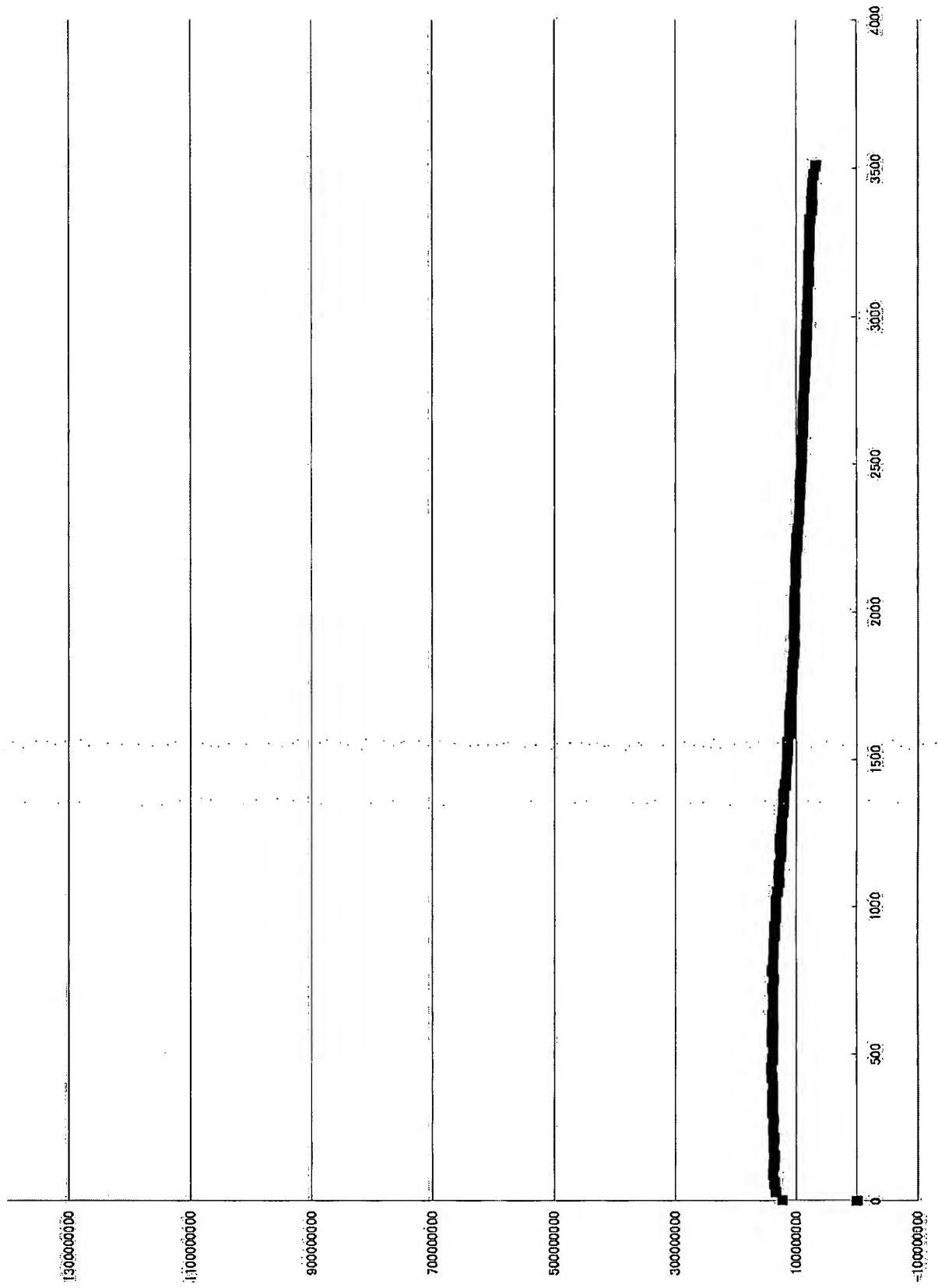


Fig. 39-11

E2F

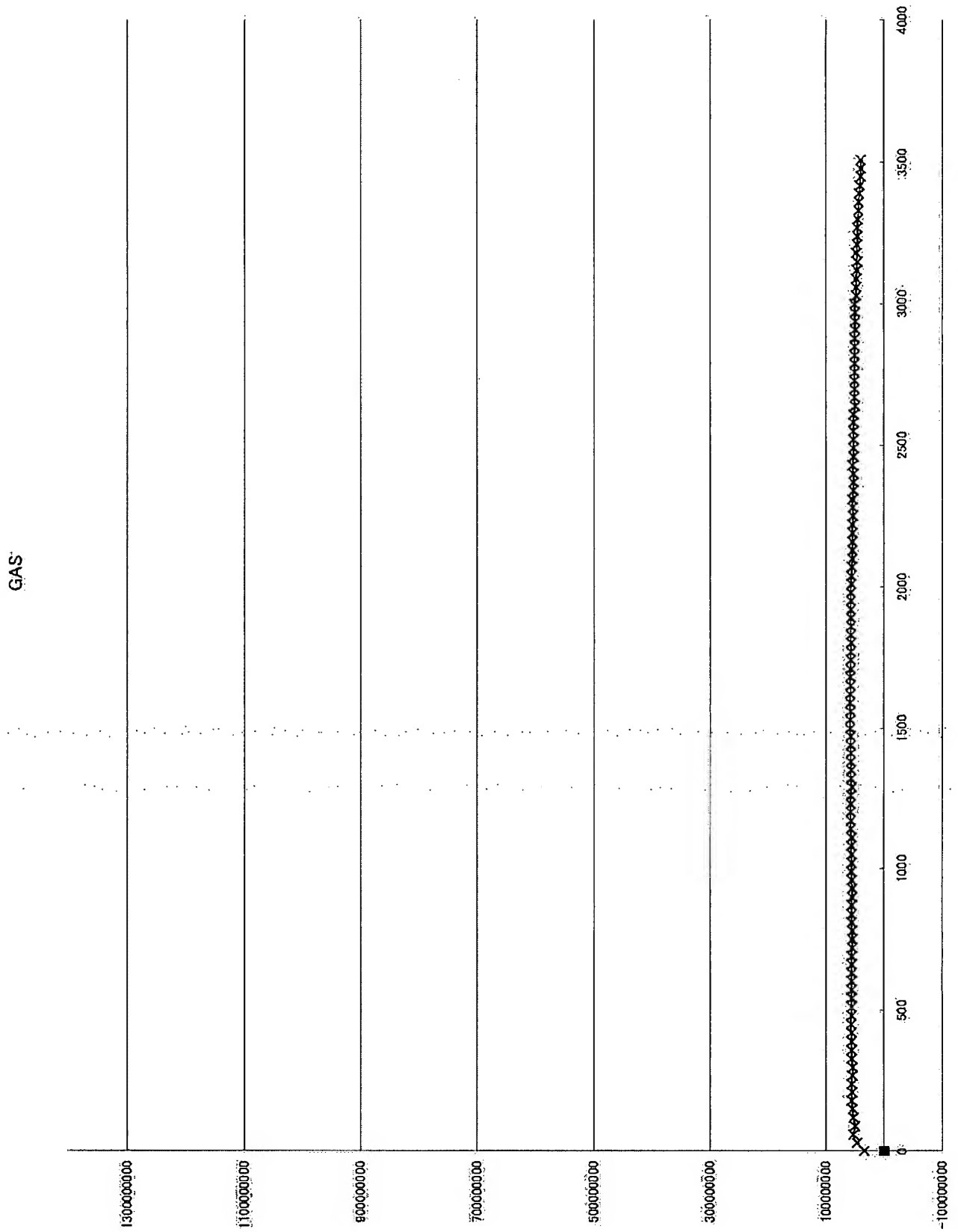


ERE

Fig. 39-12



Fig. 39-13



GRE

Fig. 39-14

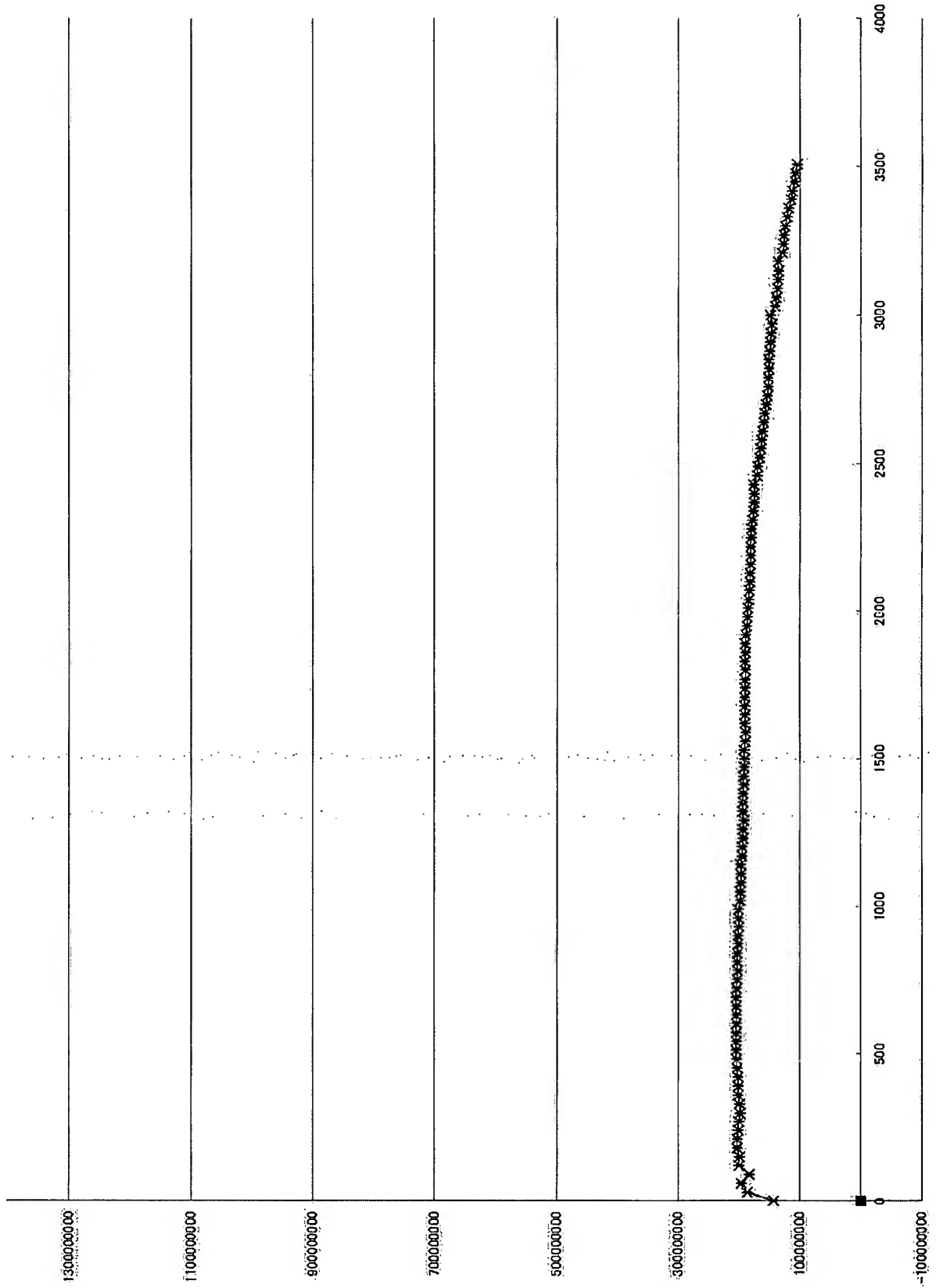


Fig. 39-15

HSE

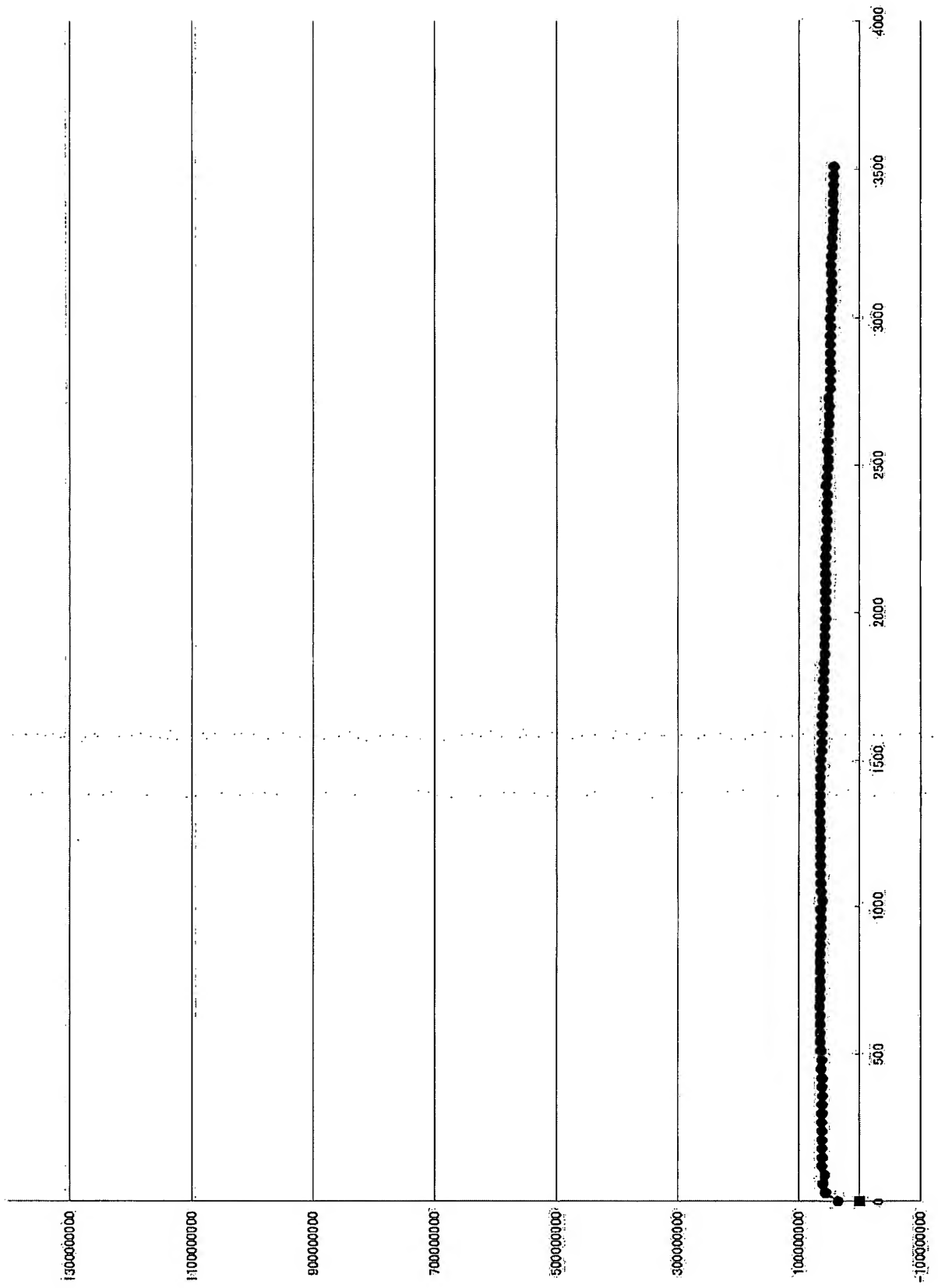


Fig. 39-16

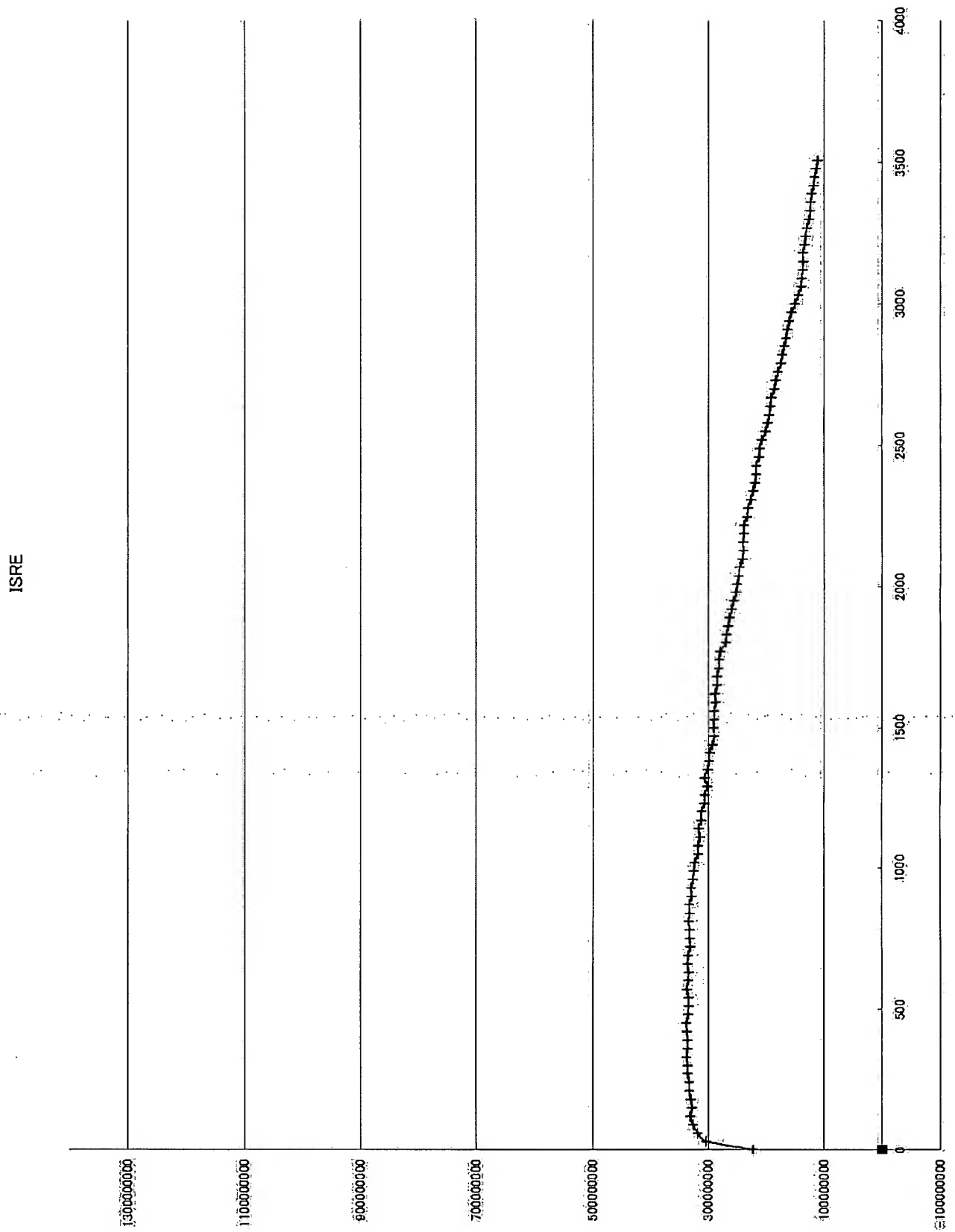


Fig. 39-17

none

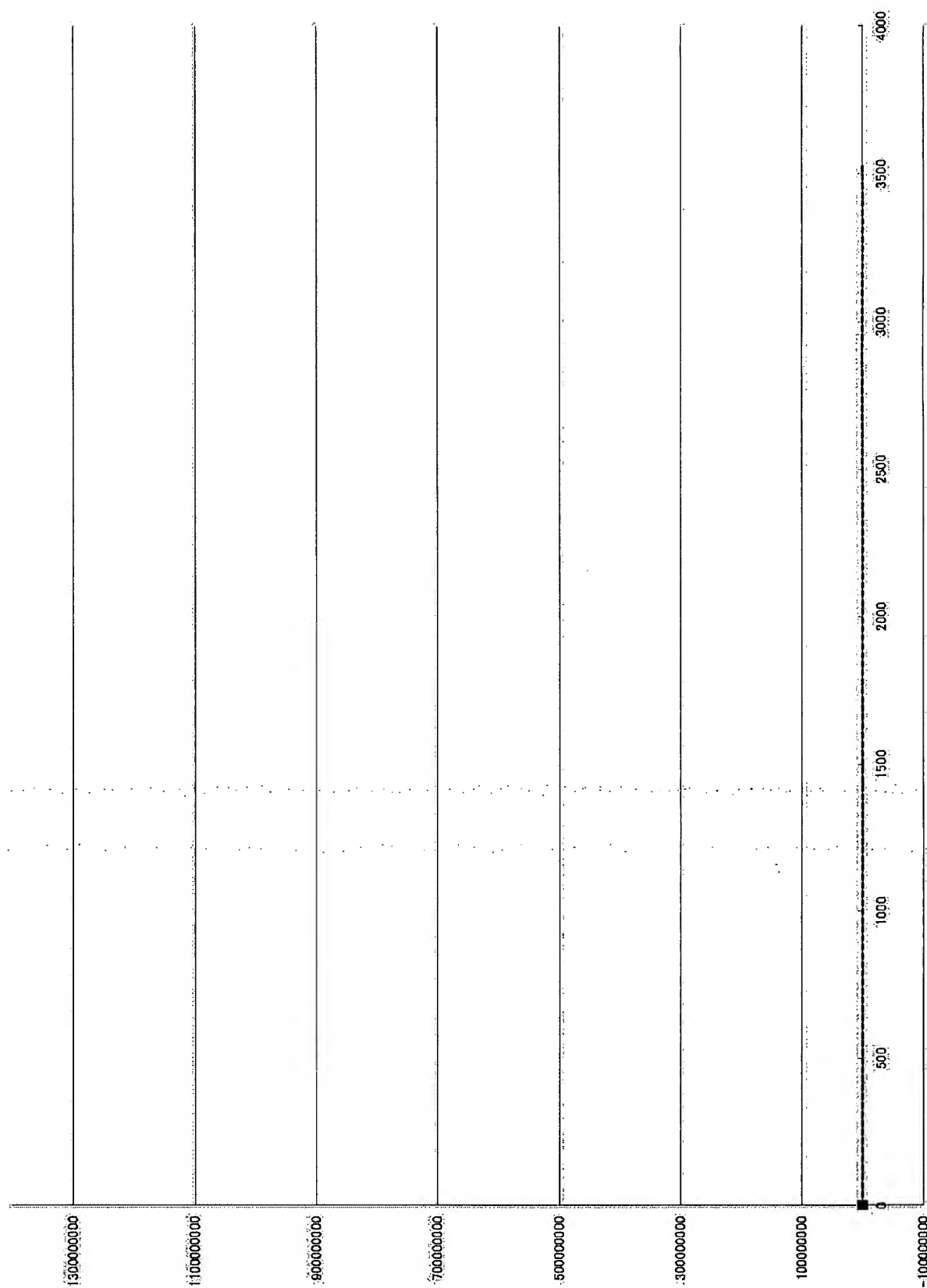
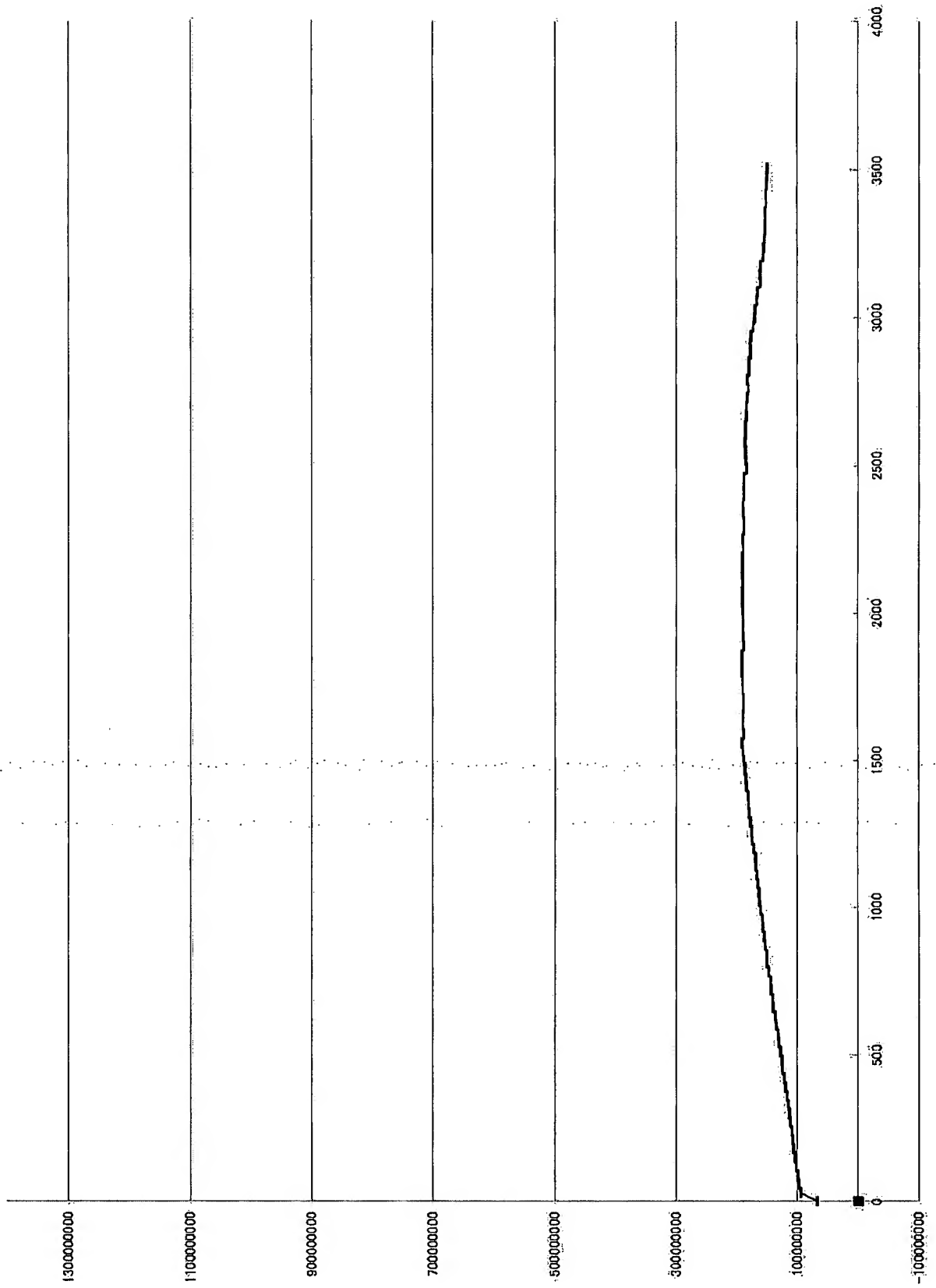


Fig. 39-18

ERE



GAS

Fig. 39-19

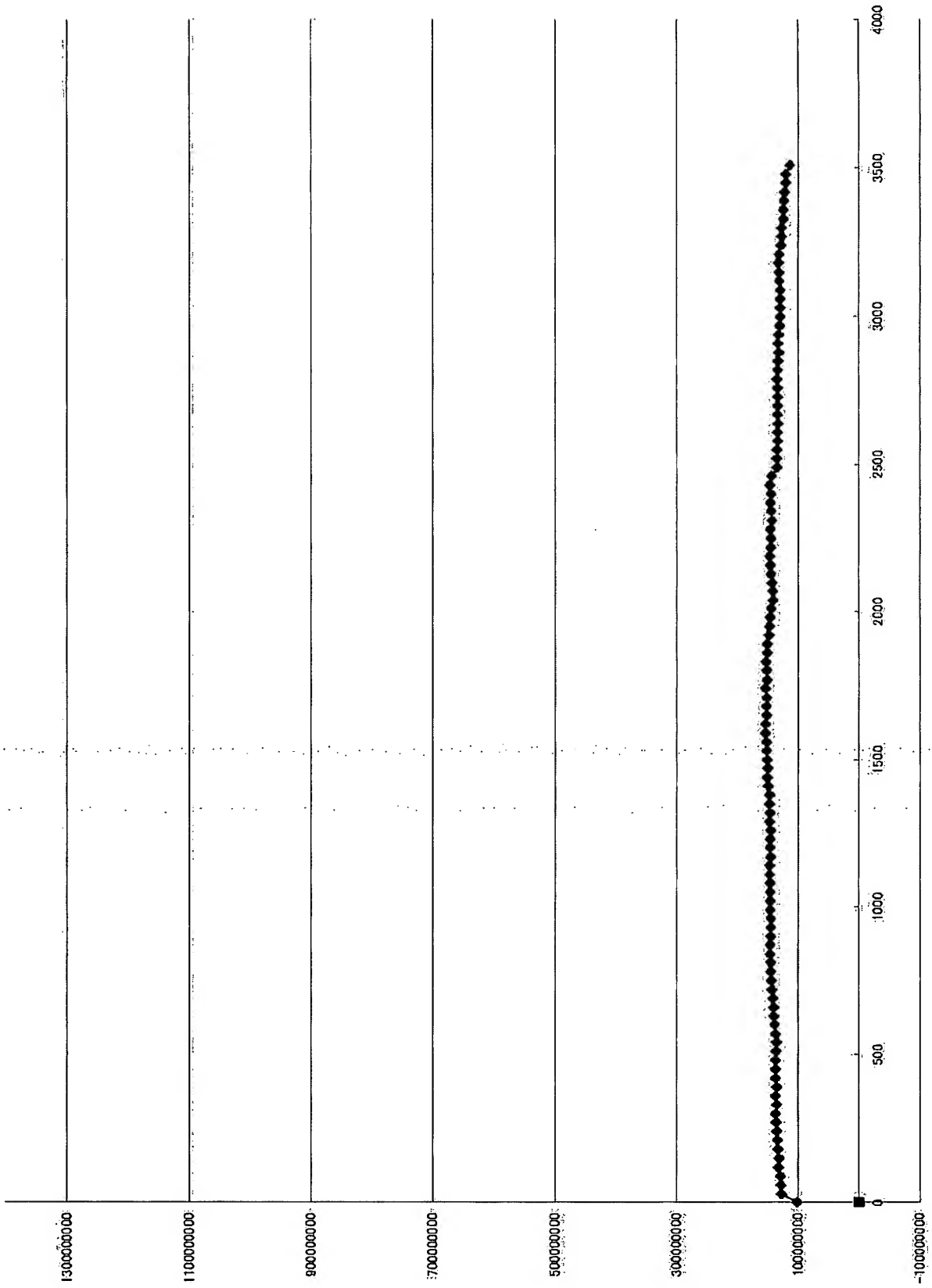


Fig. 39-20

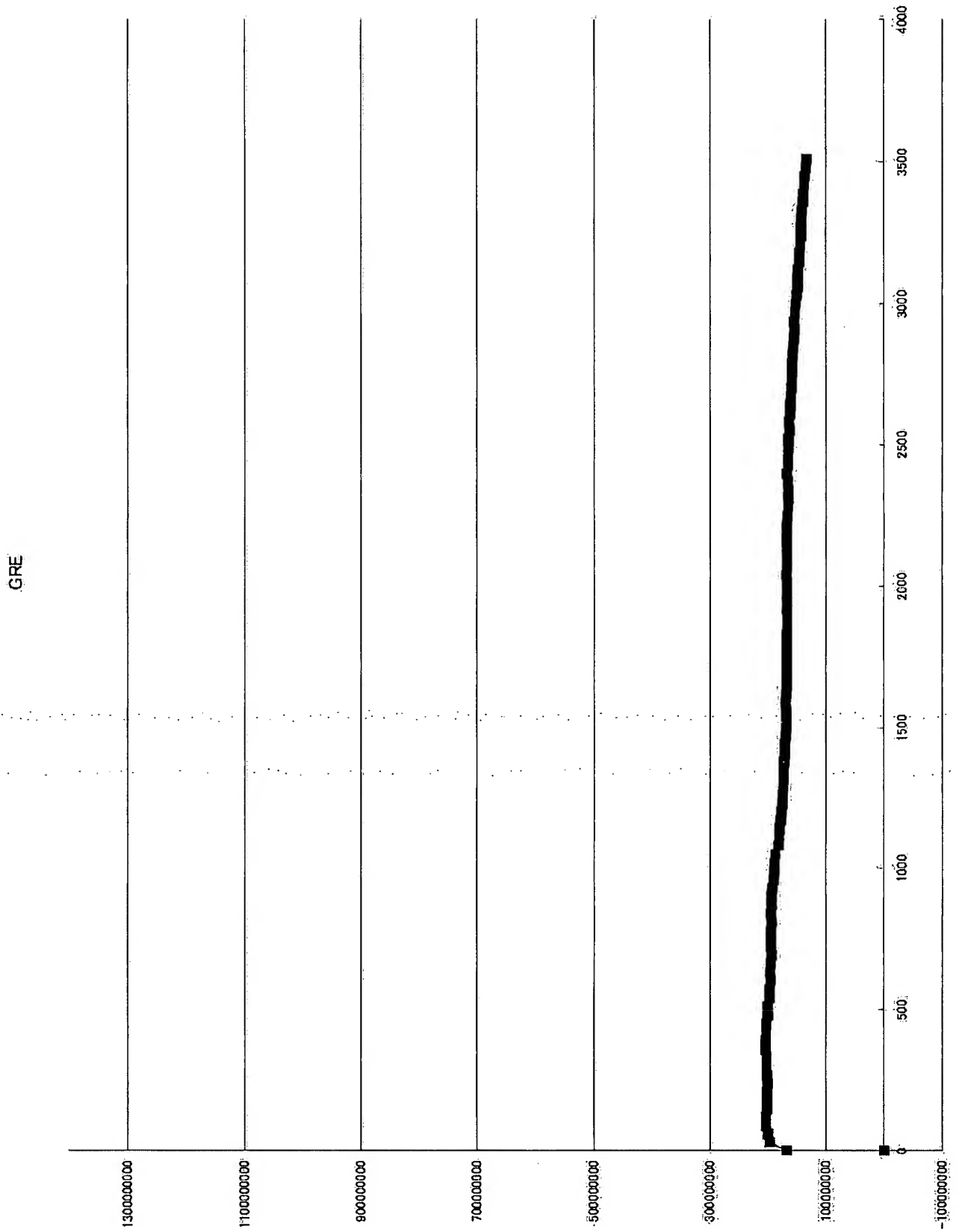
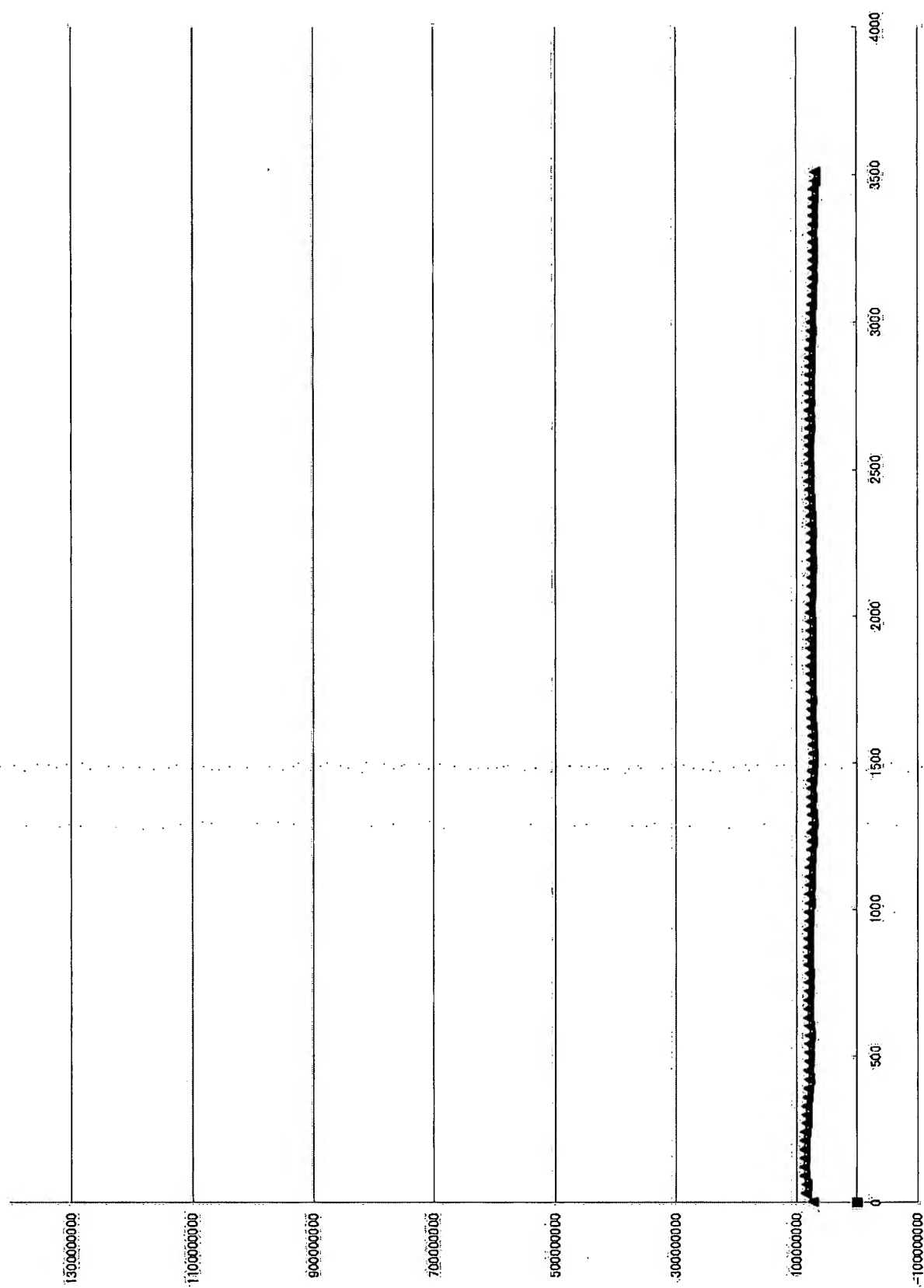


Fig. 39-21

HSE



JSRE

Fig. 39-22

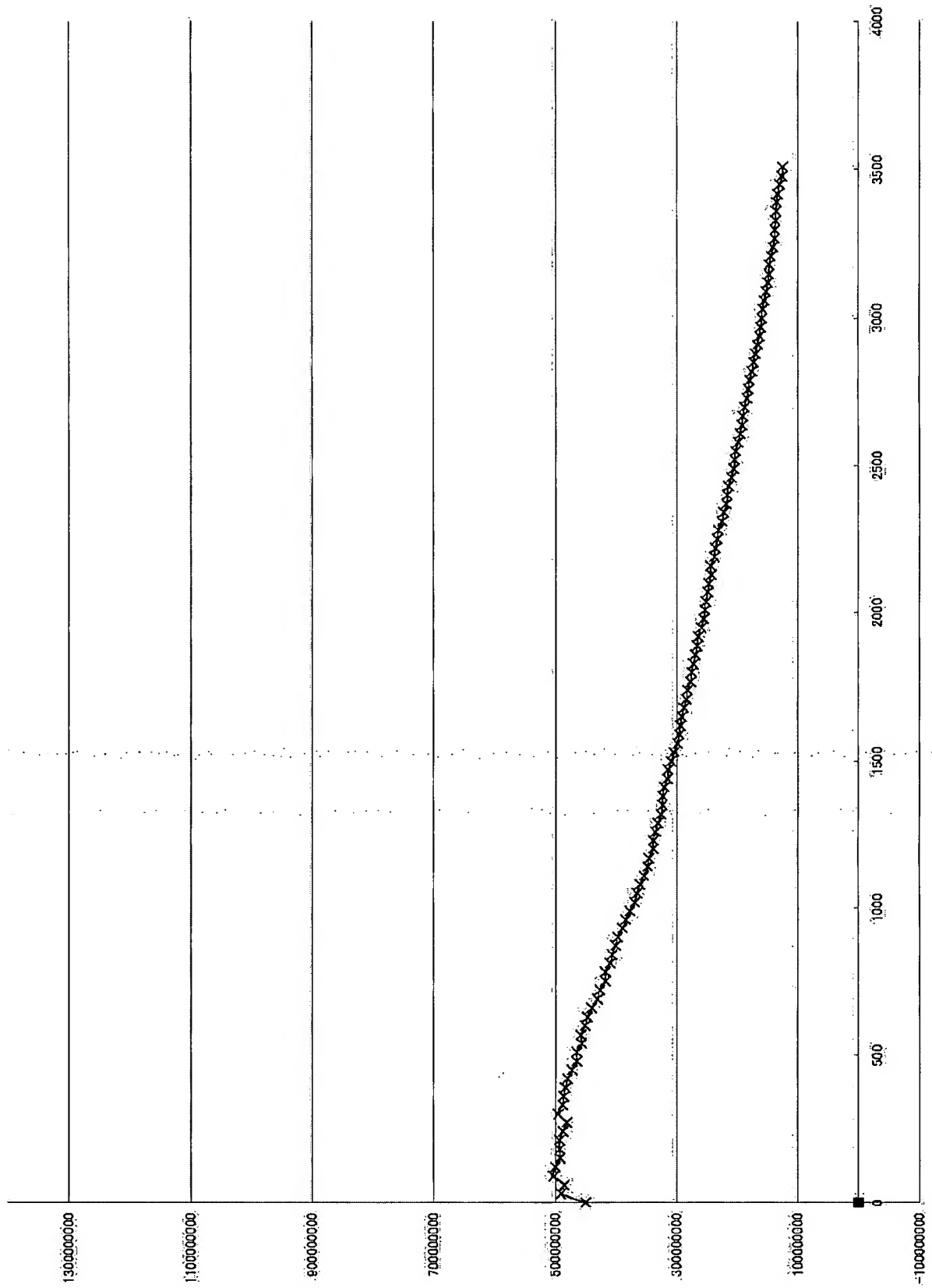


Fig. 39-23

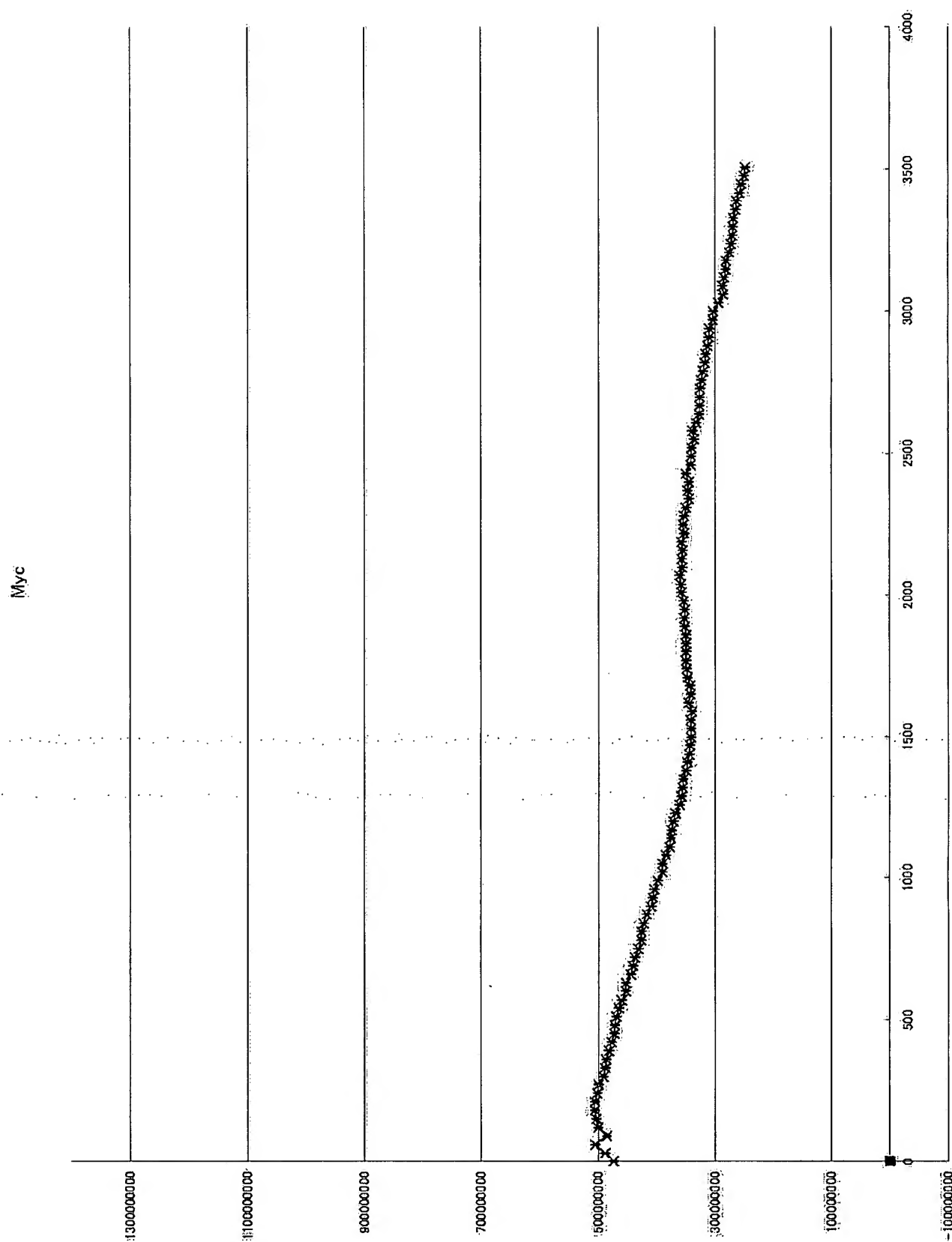


Fig. 39-24

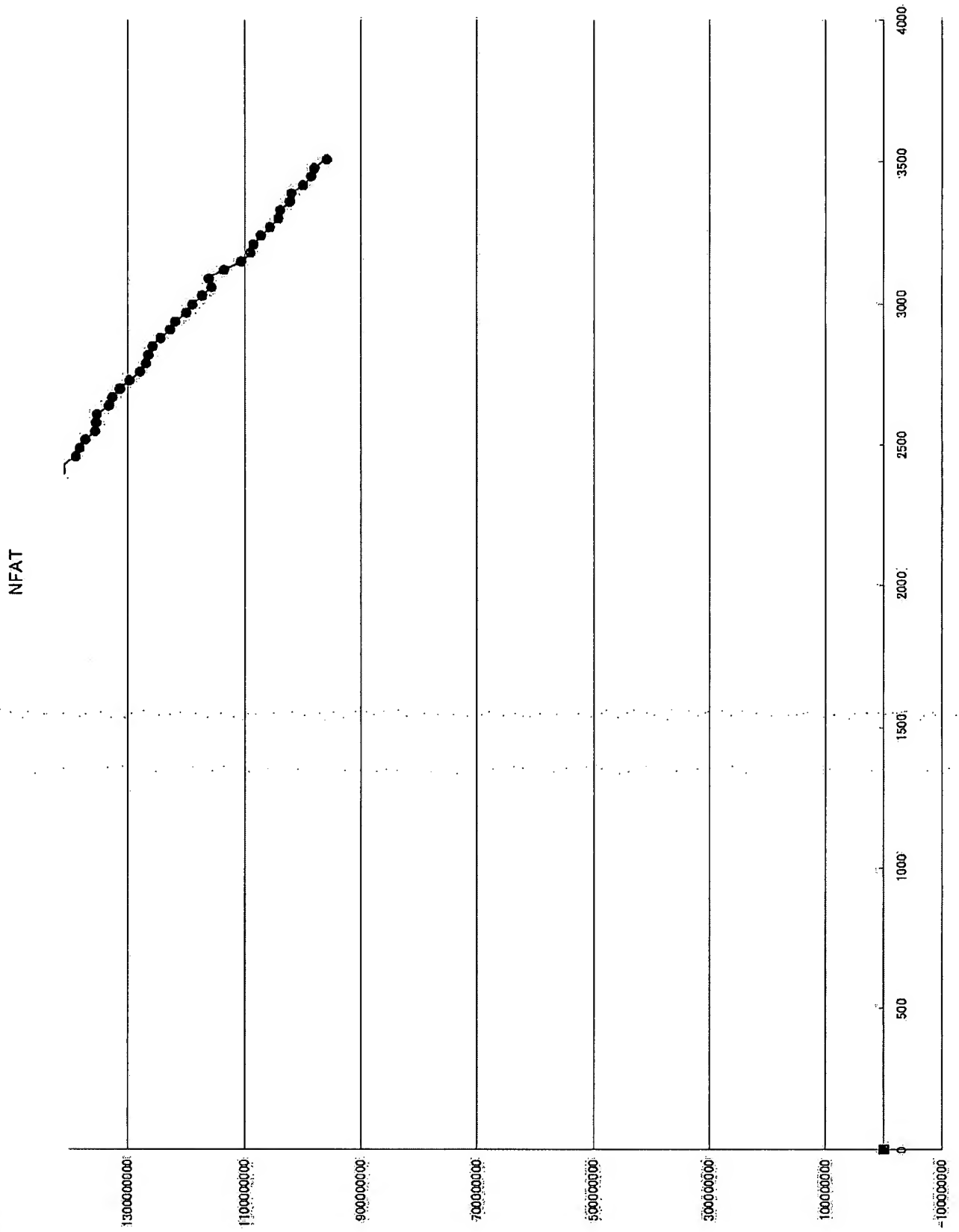


Fig. 39-25

NFKB



RARE

Fig. 39-26

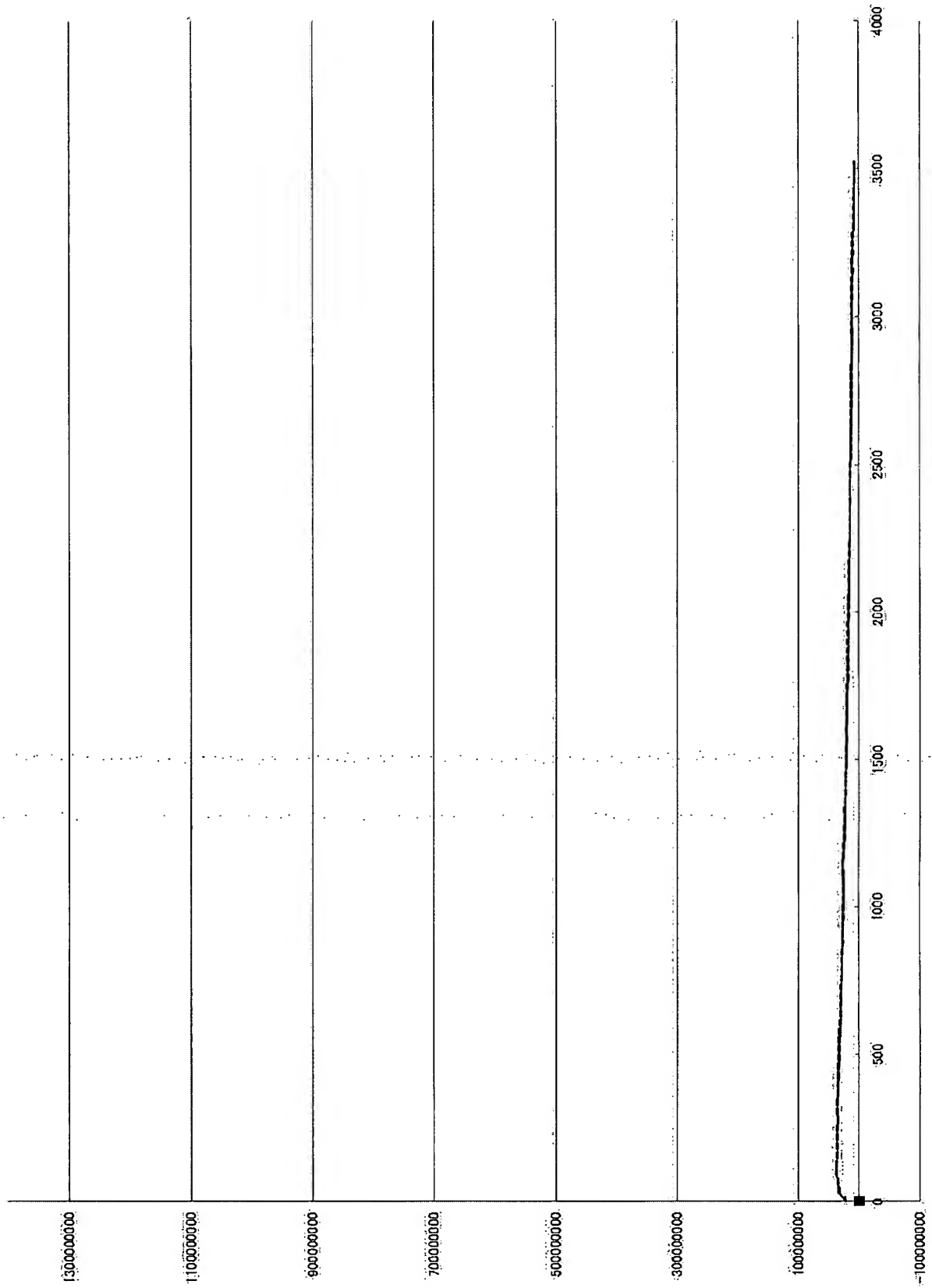


Fig. 39-27

Rb

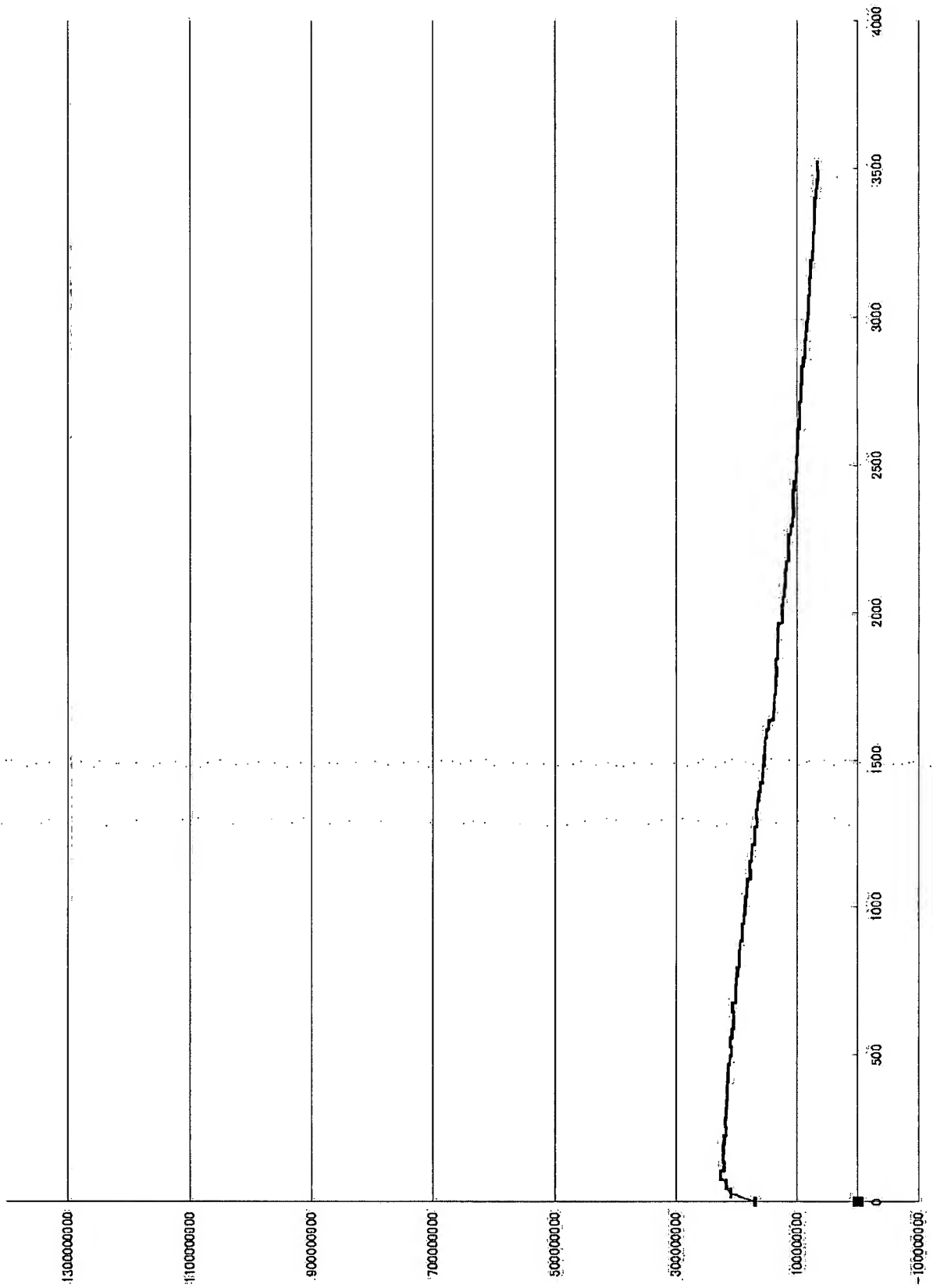


Fig. 39-28

none

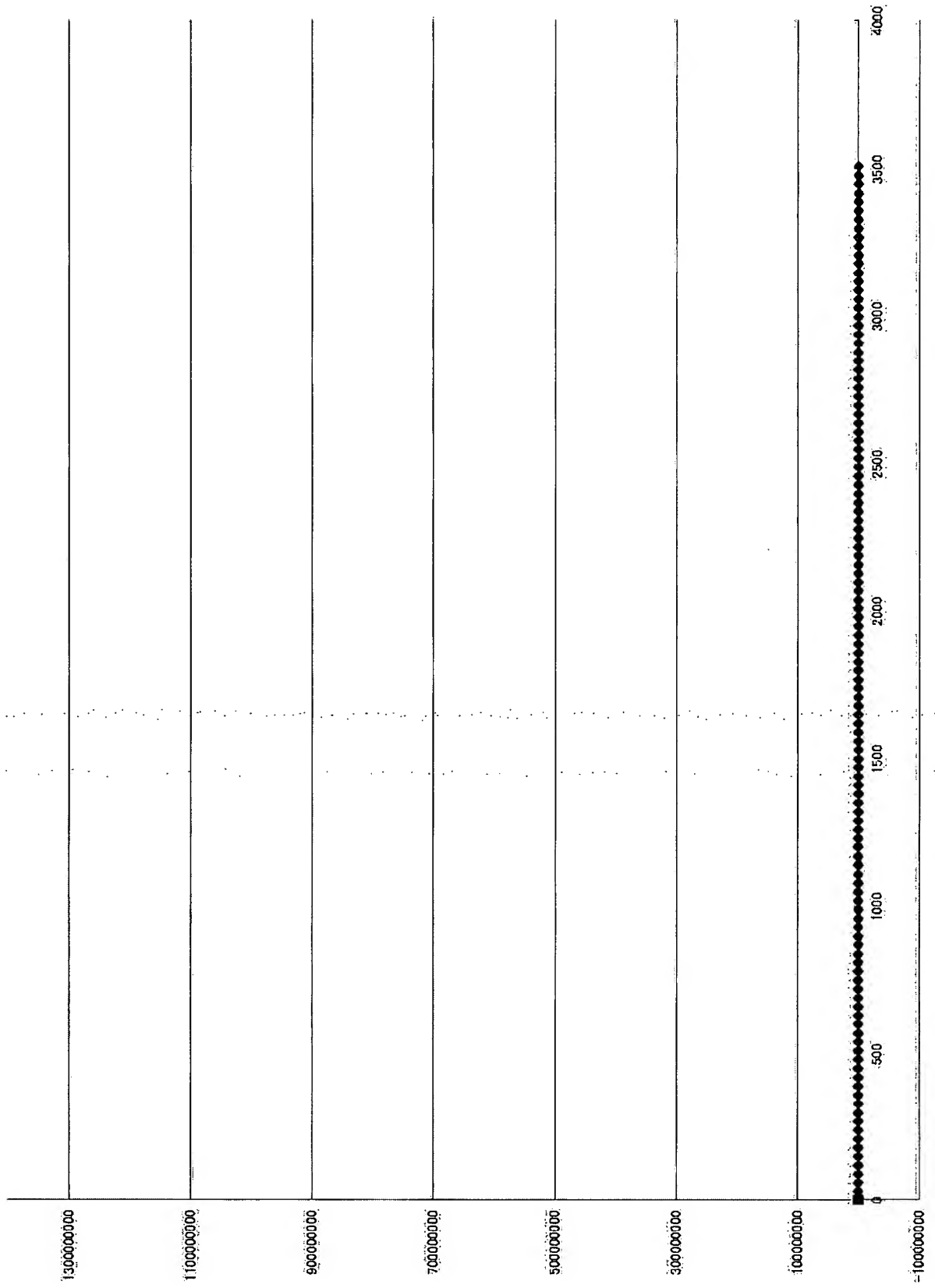
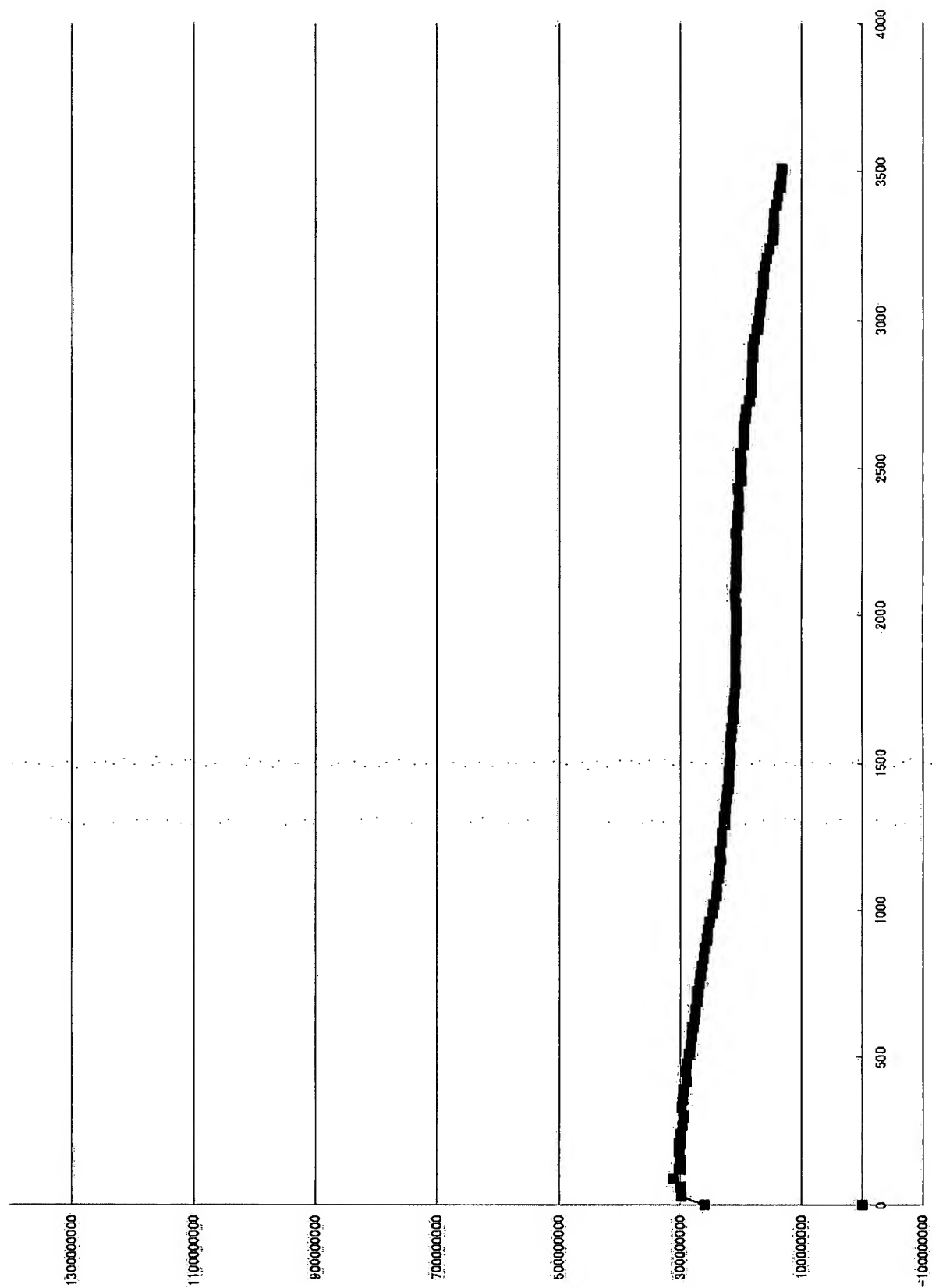


Fig. 39-29

Myc.



NFAT

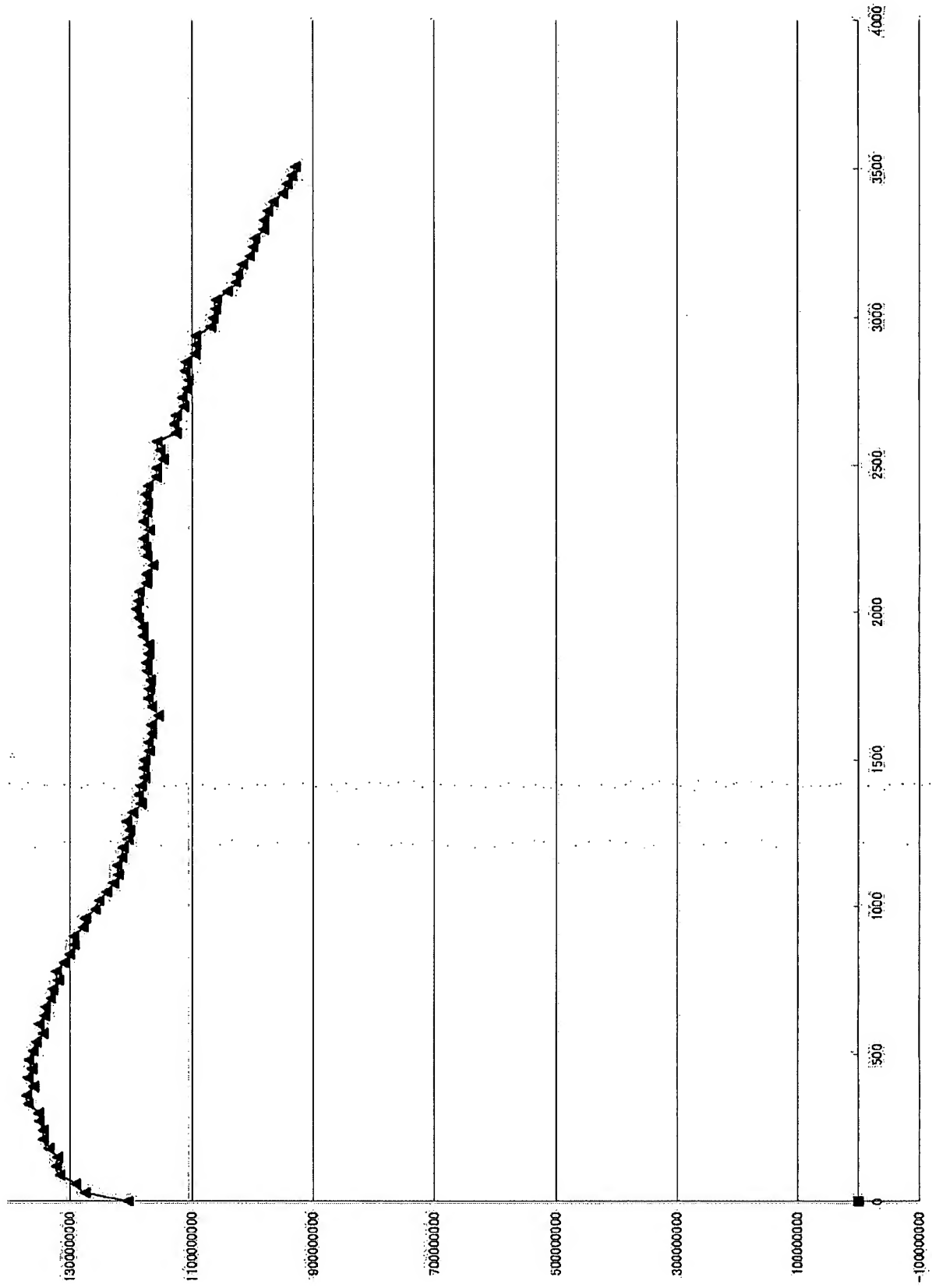


Fig. 39-30

Fig. 39-31

NFKB

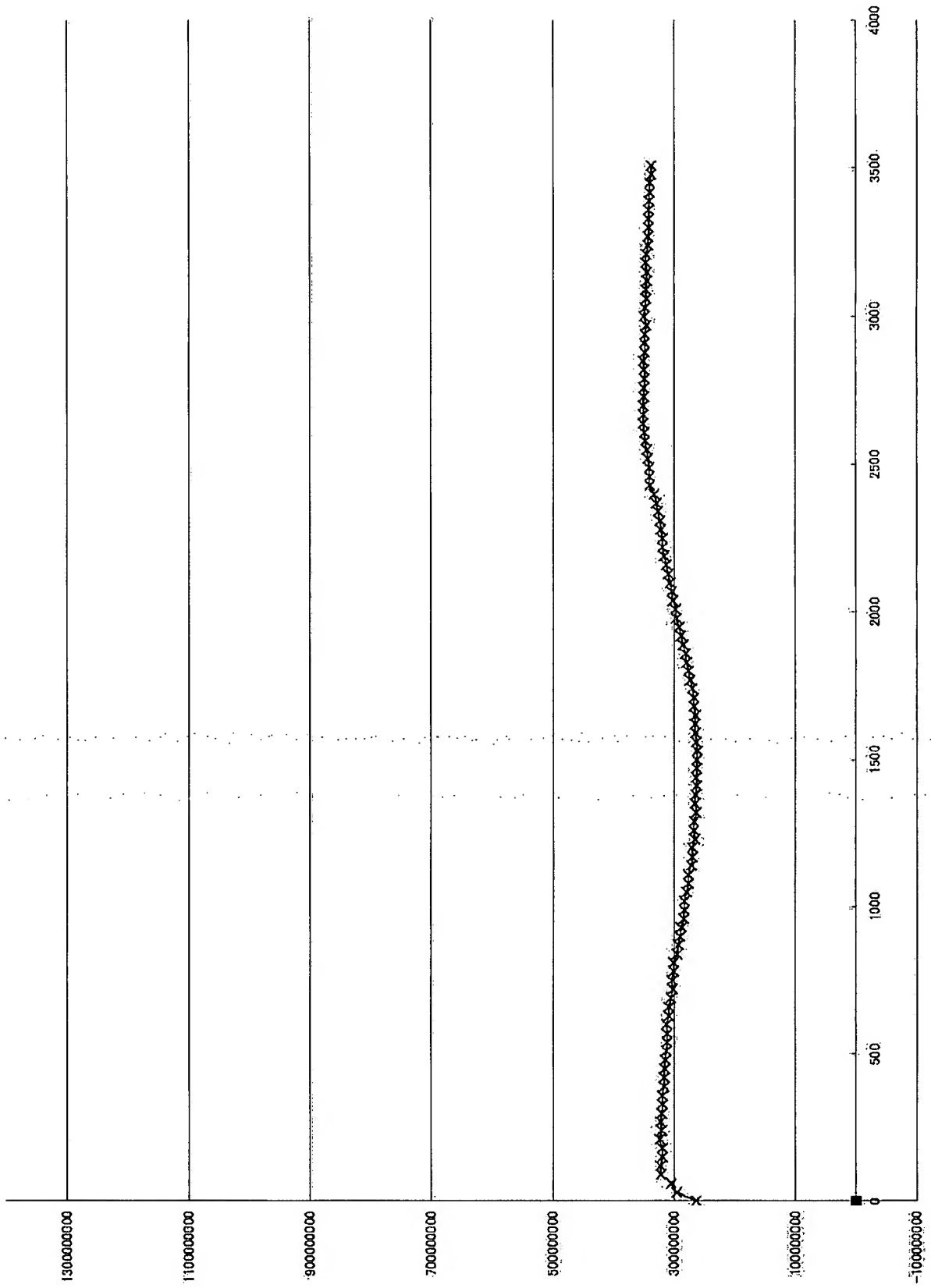


Fig. 39-32

RARE

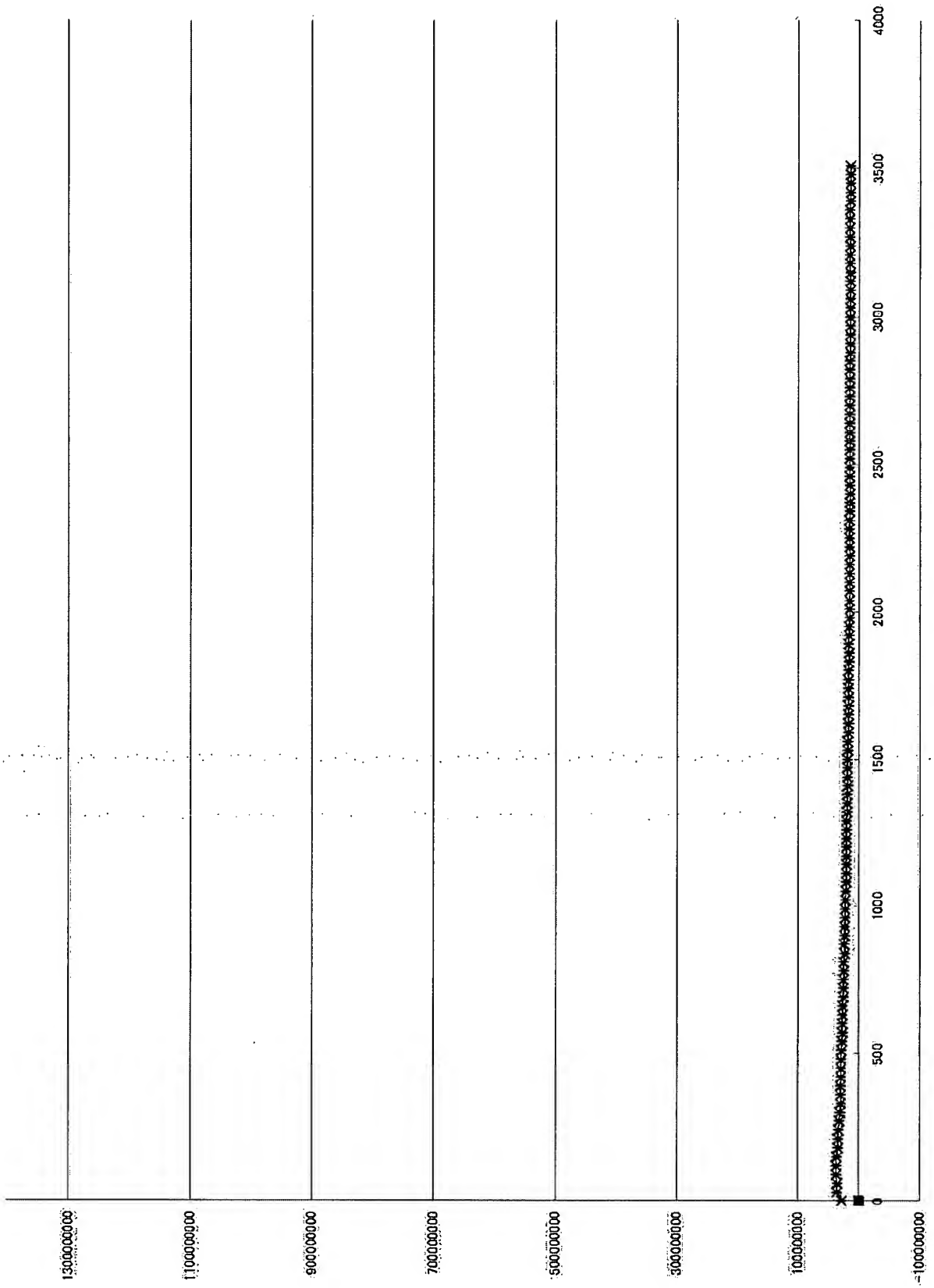
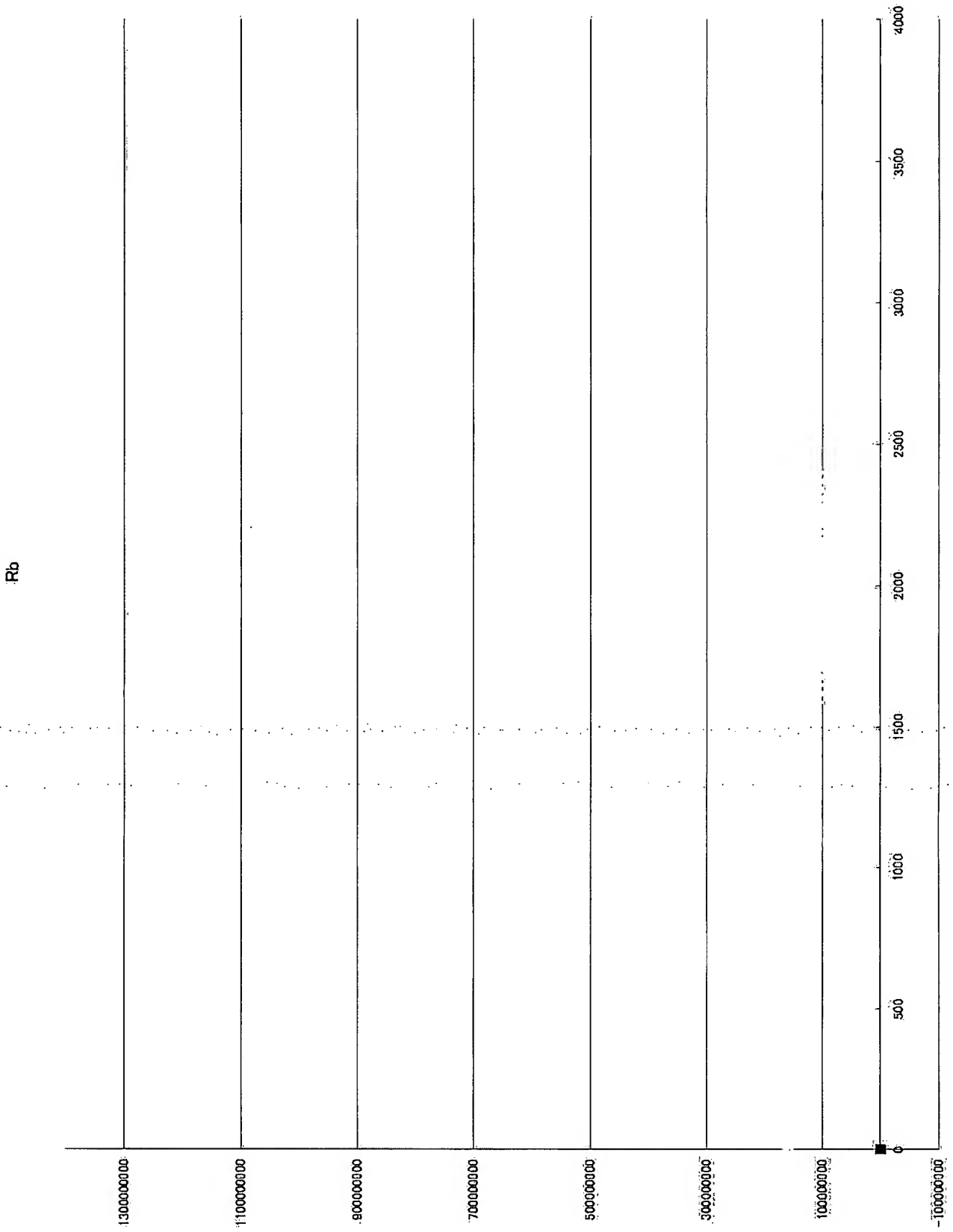


Fig. 39-33



STAT3

Fig. 39-34

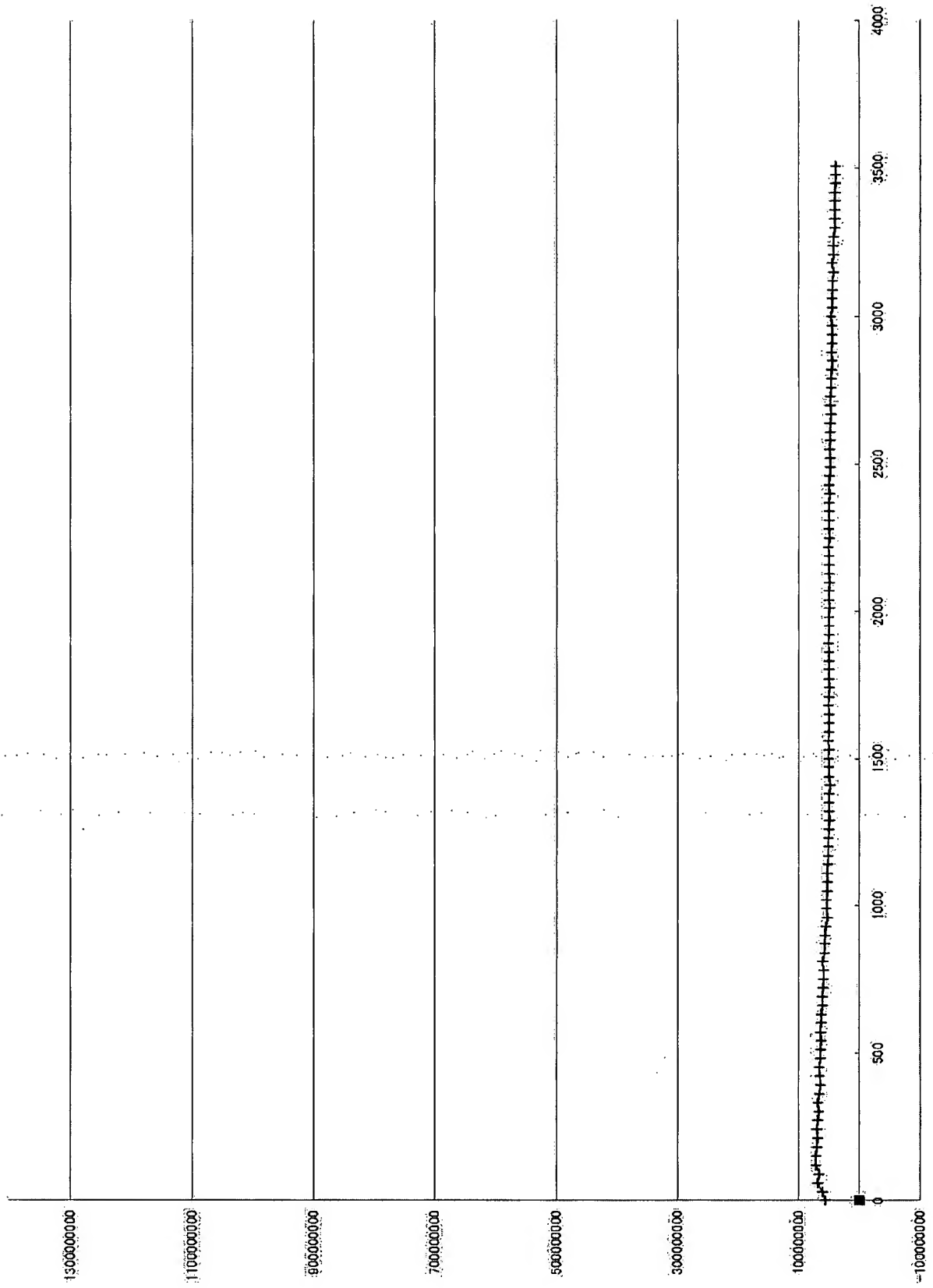


Fig. 39-35

SRE

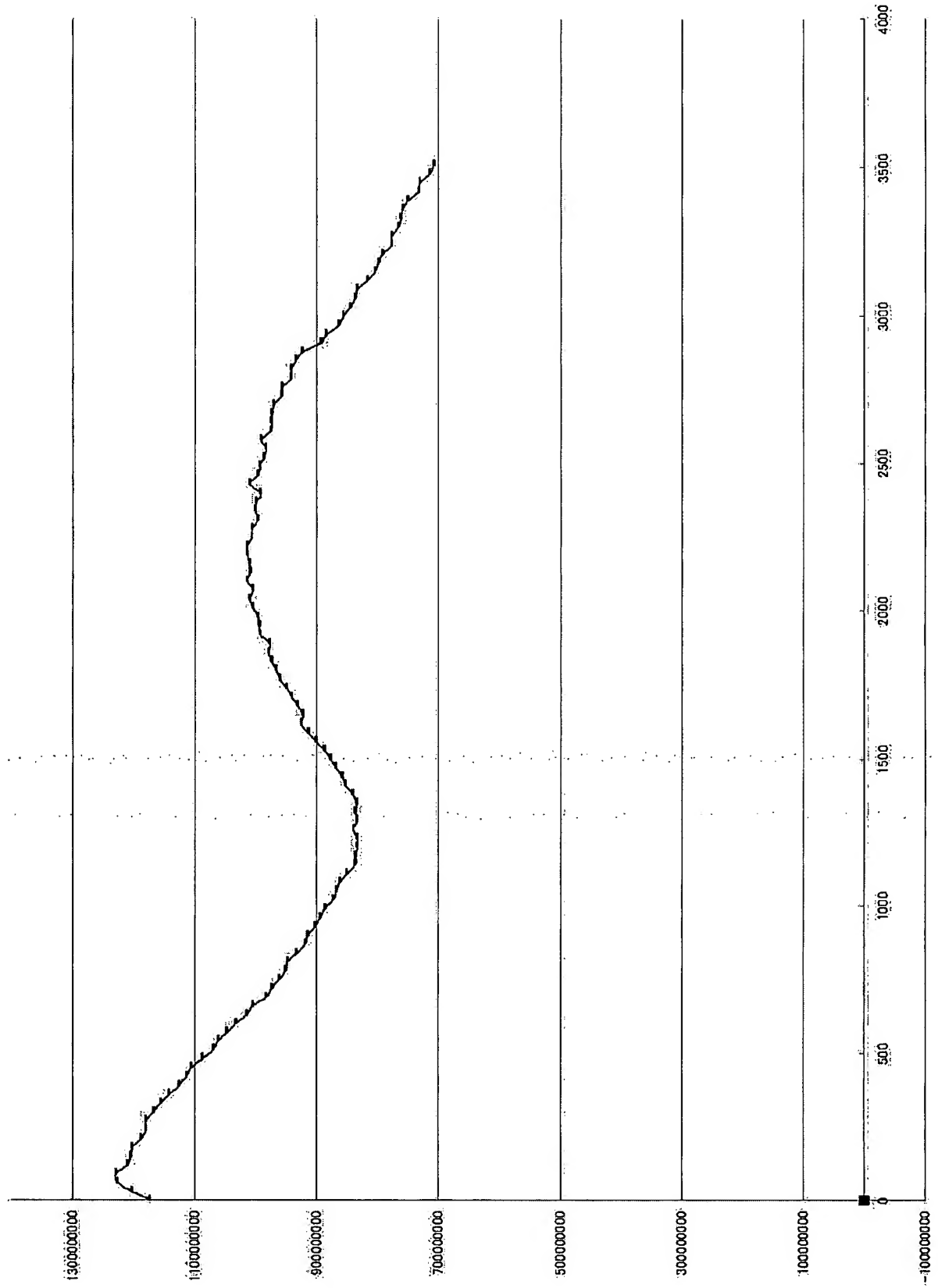


Fig. 39-36

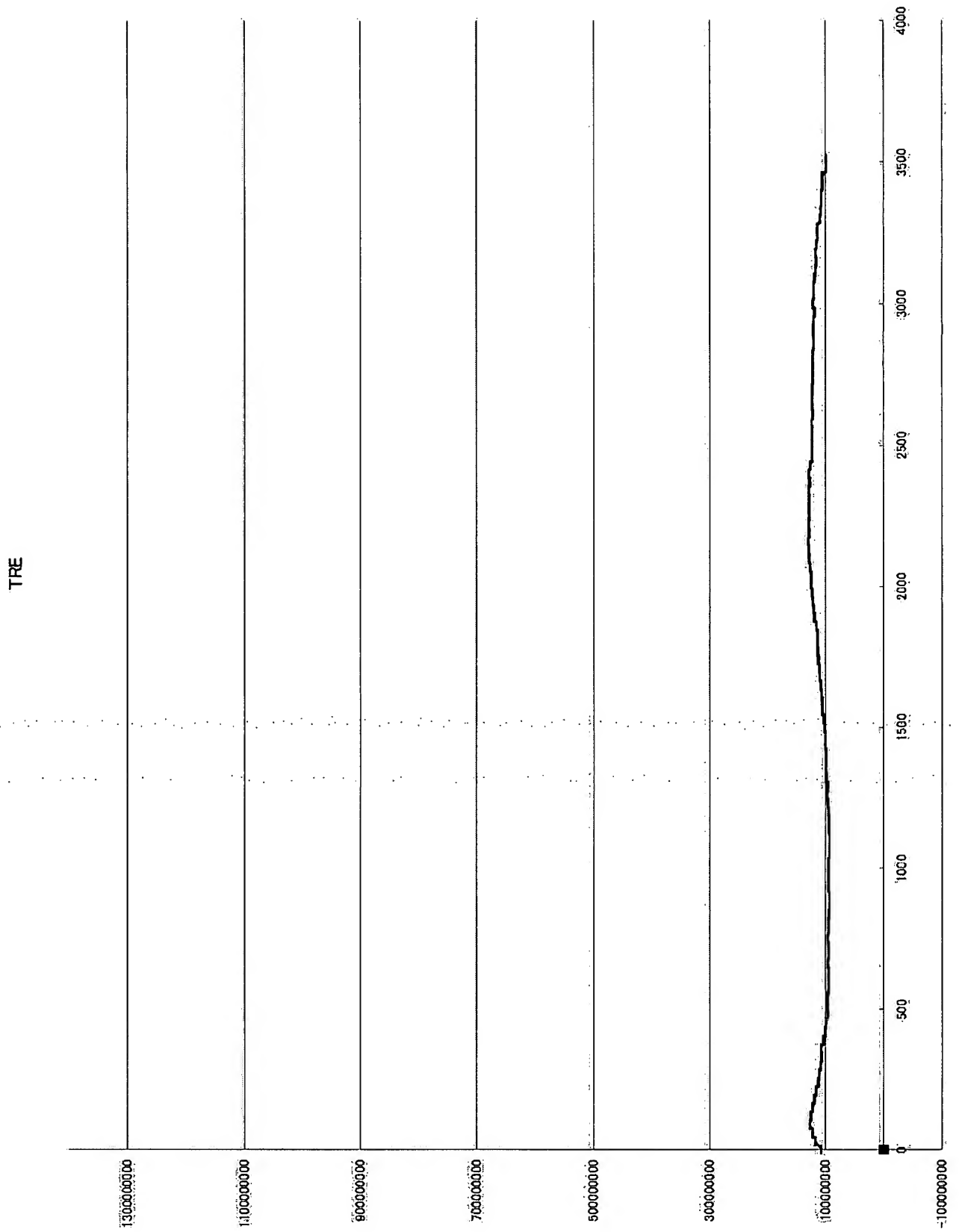
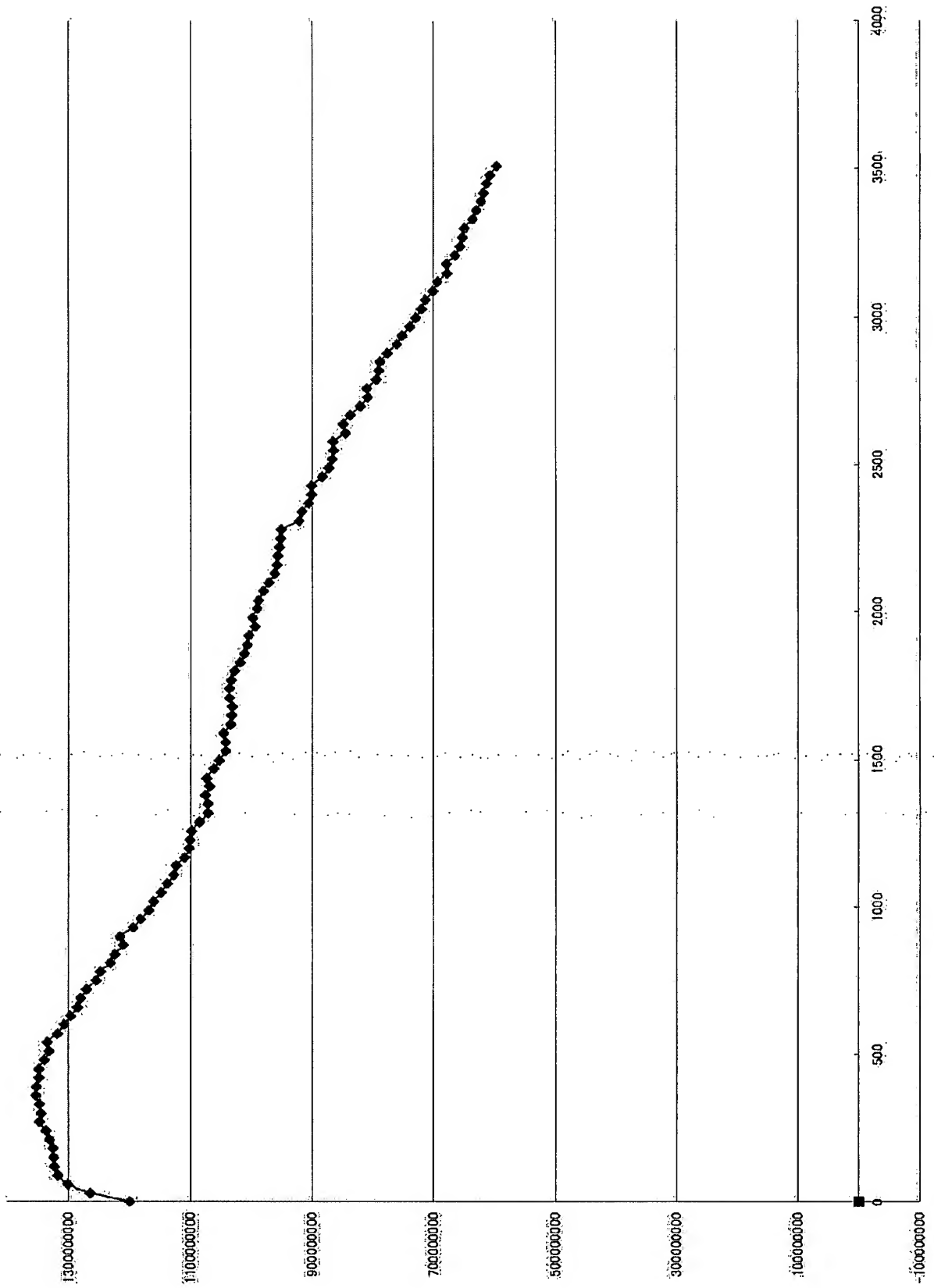


Fig. 39-37

p53



Caspase3

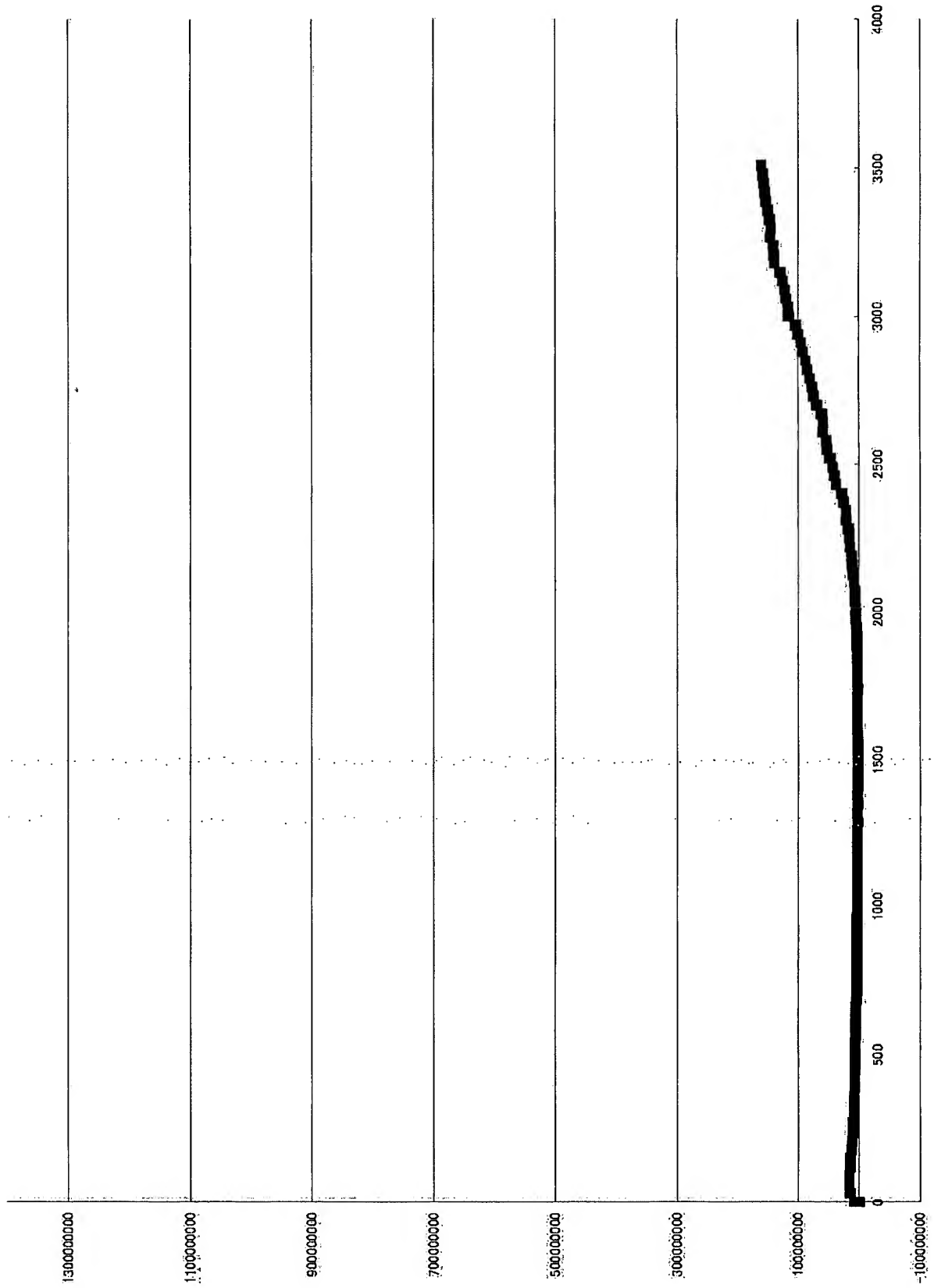


Fig. 39-38

none

Fig. 39-39

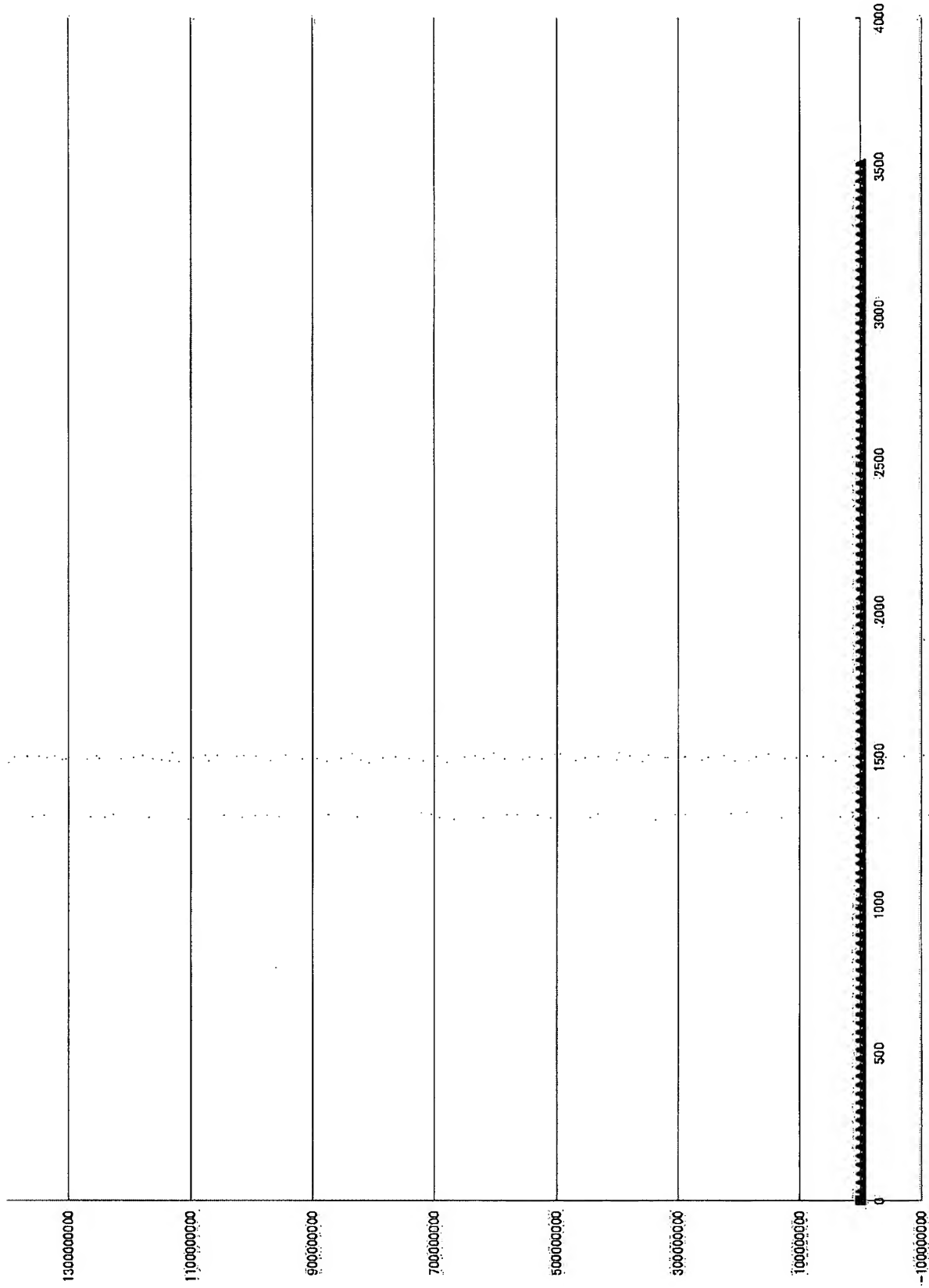


Fig. 39-40

STAT3

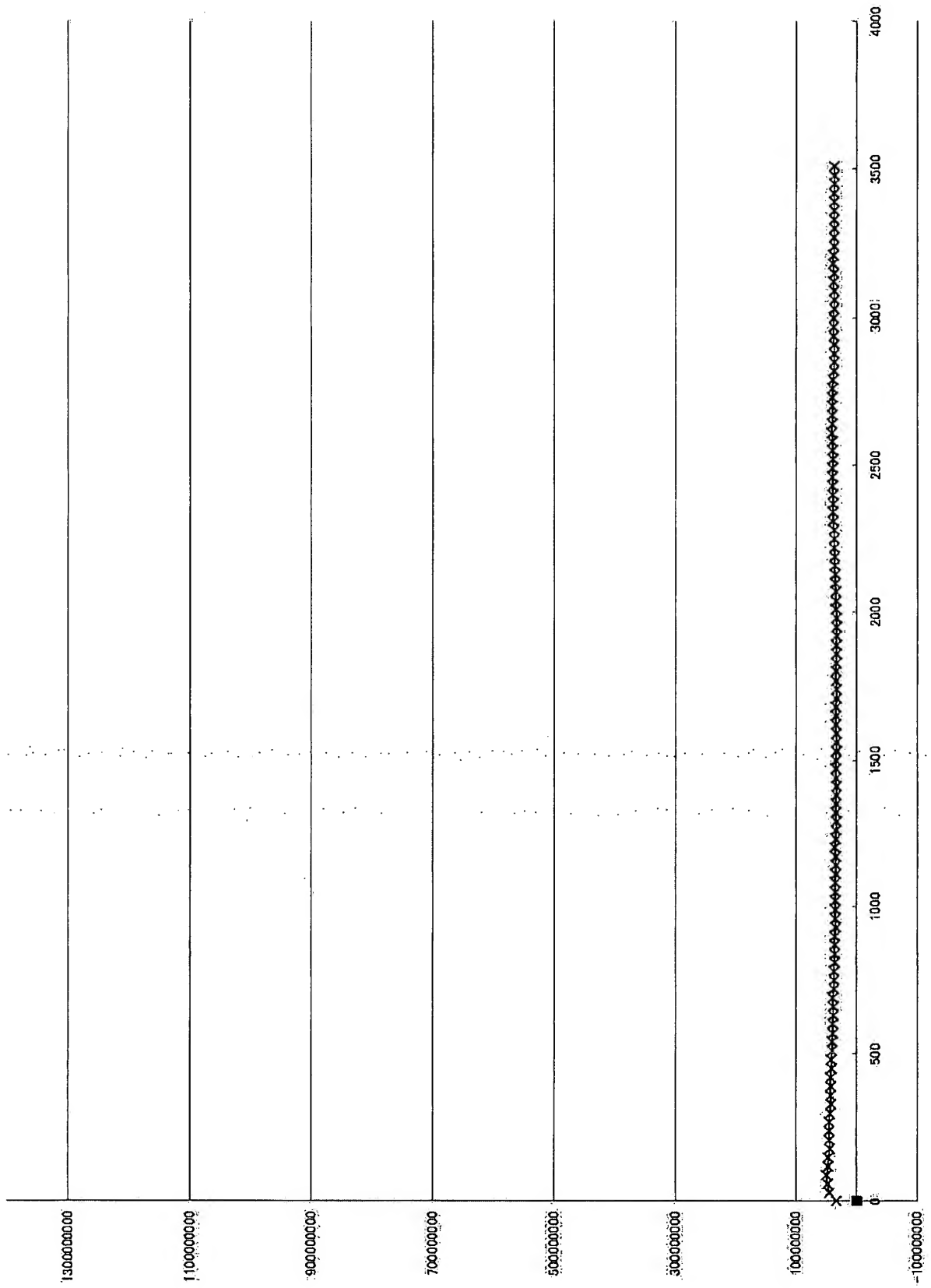


Fig. 39-41

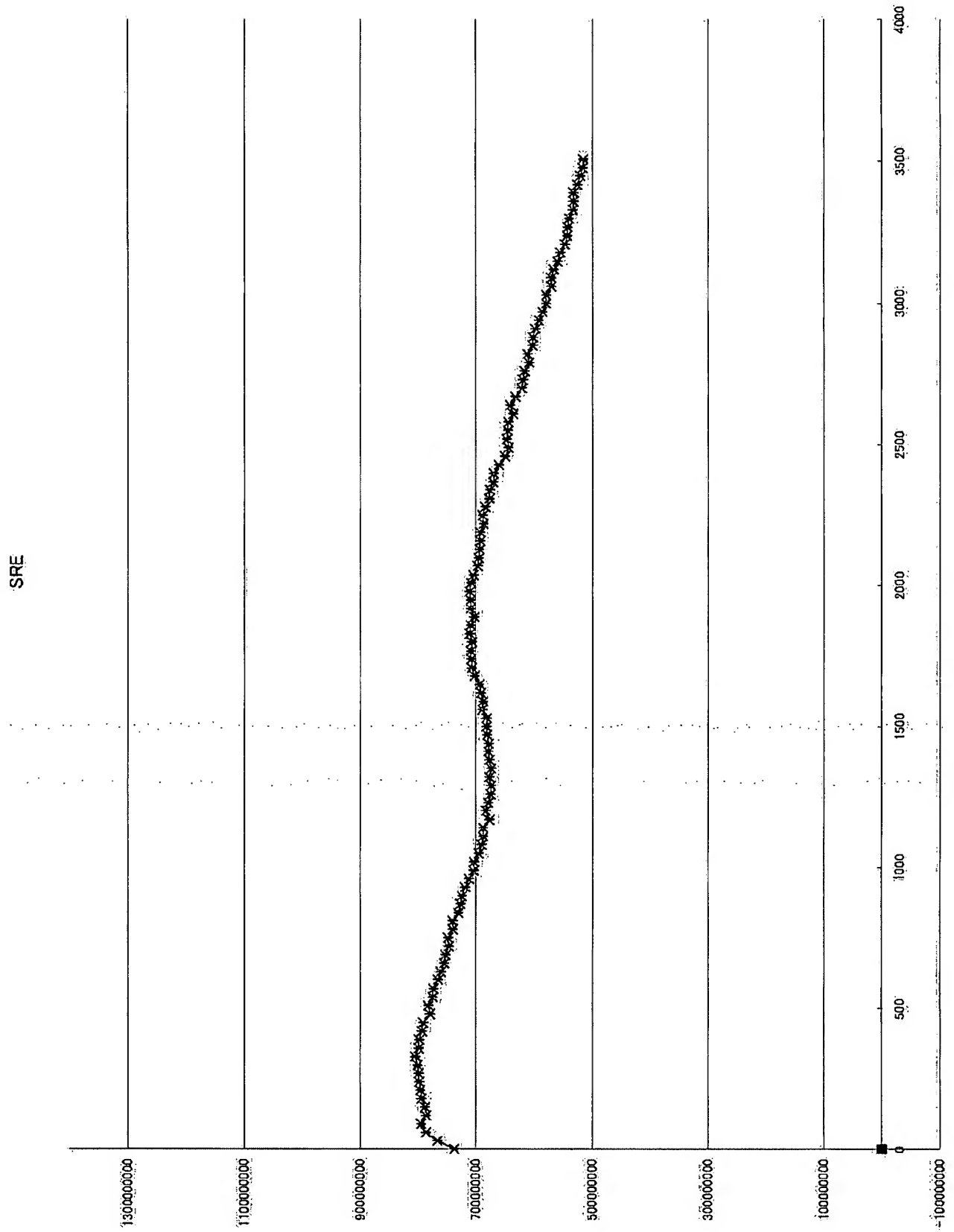


Fig. 39-42

TRE

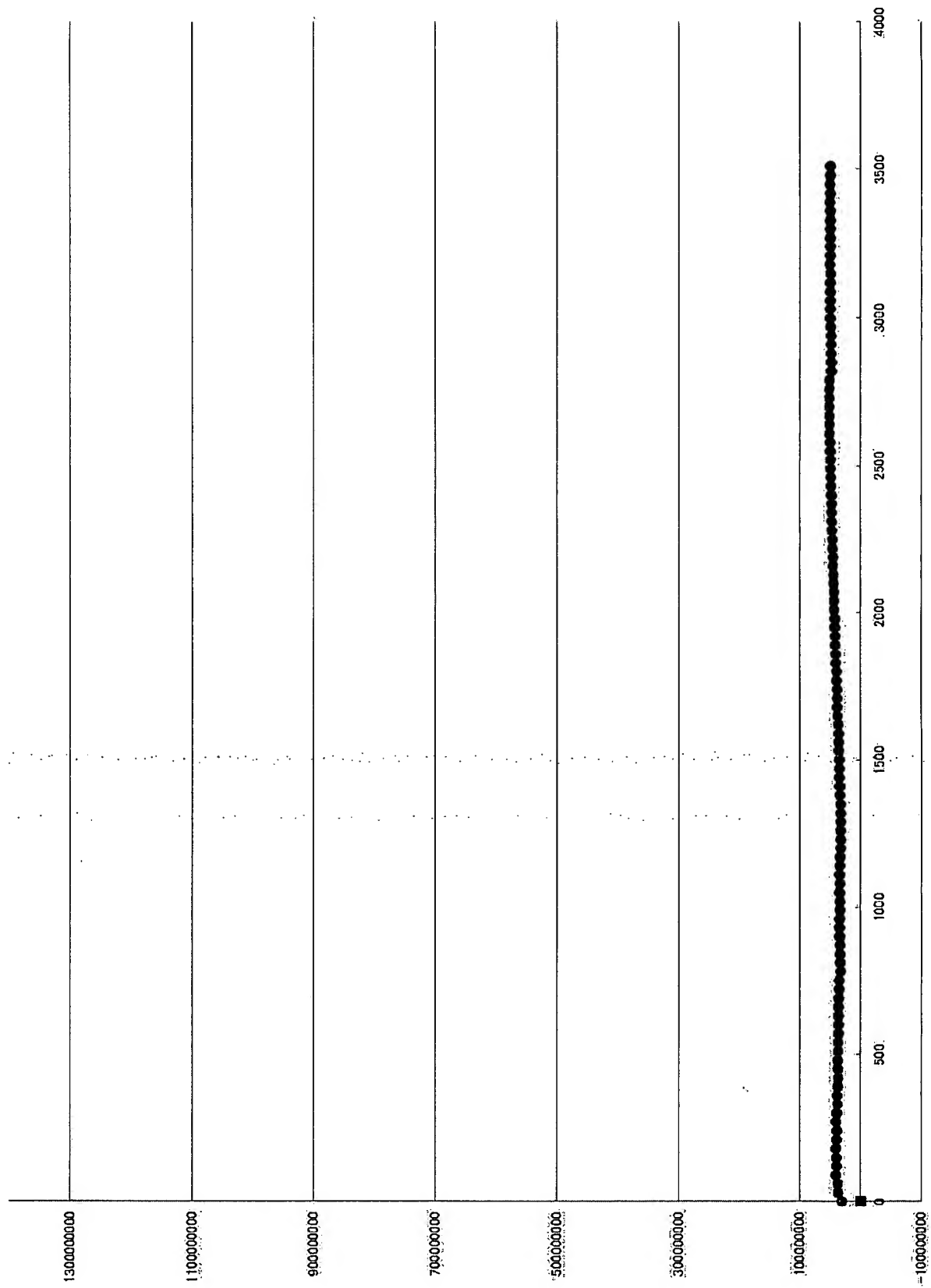


Fig. 39-43

p53

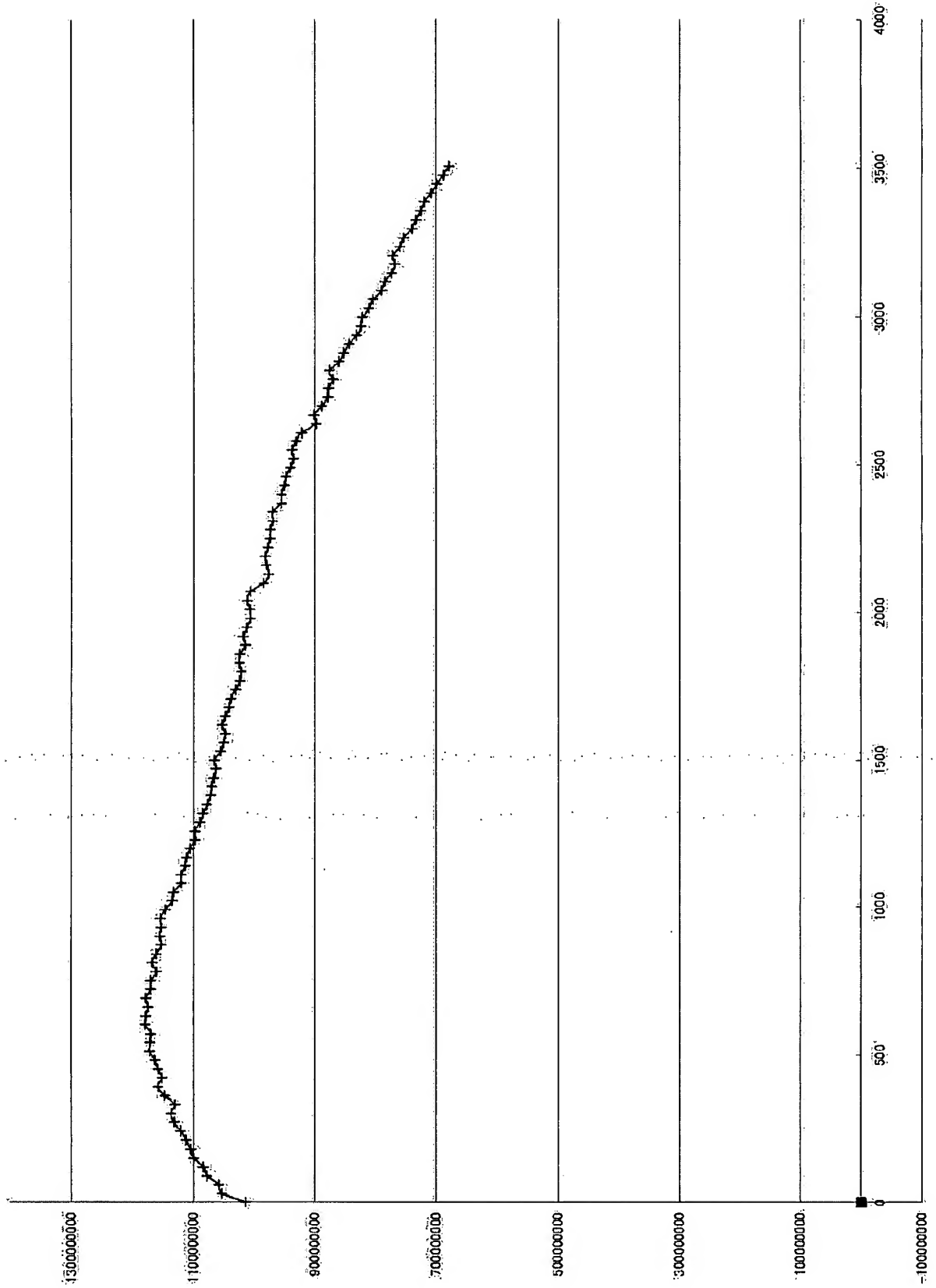


Fig. 39-44

Caspase3

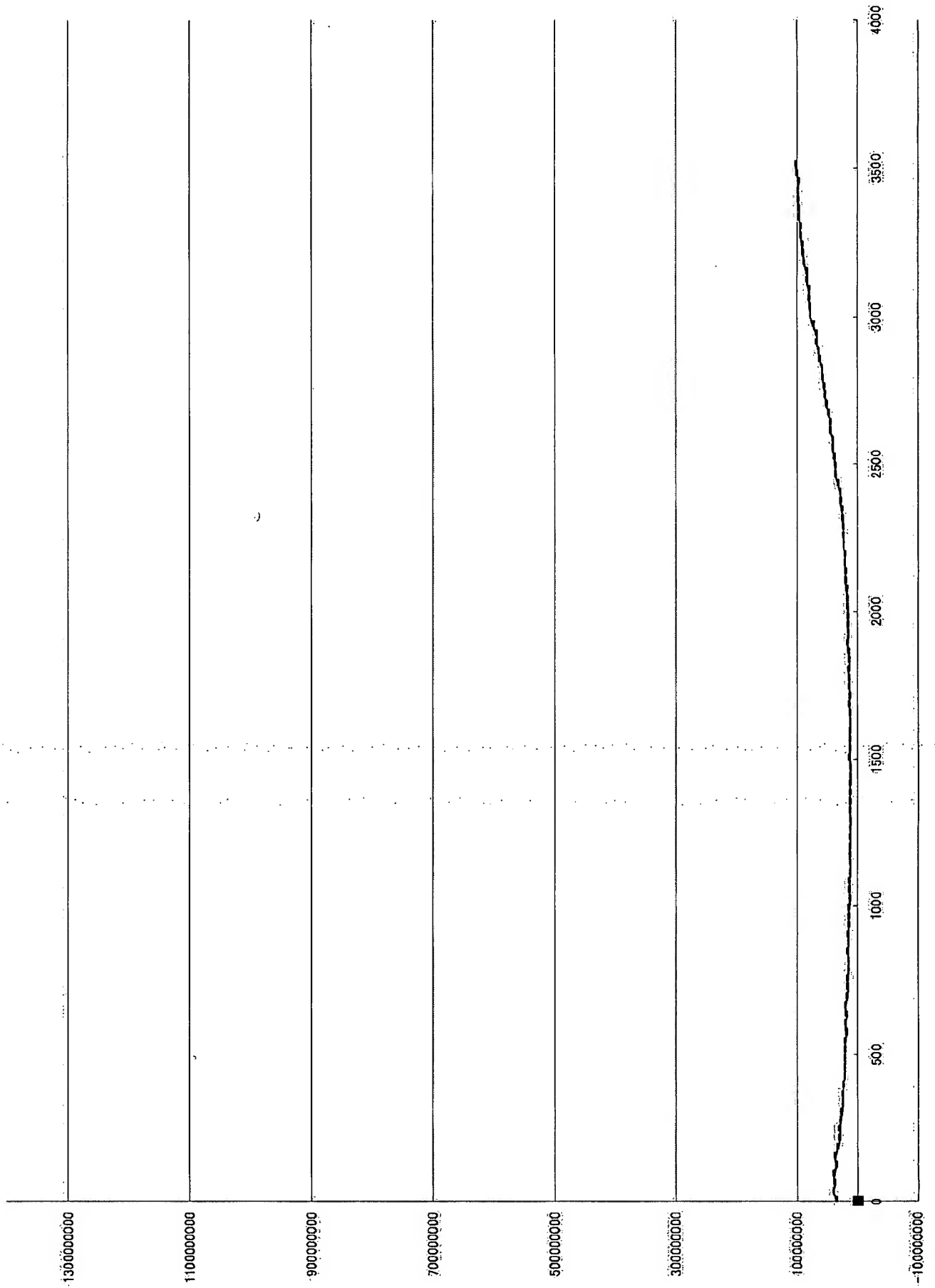
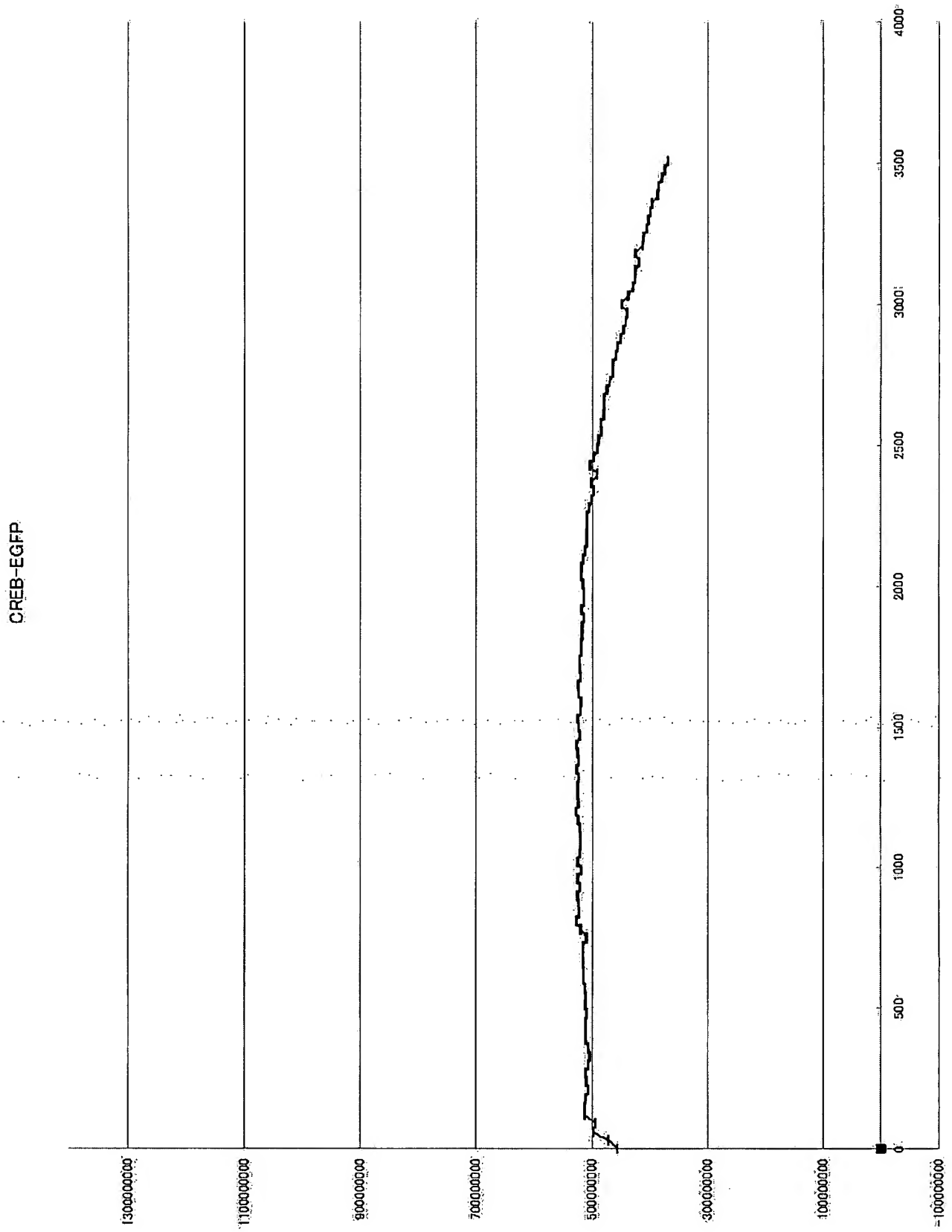


Fig. 39-45



1kB-EGFP

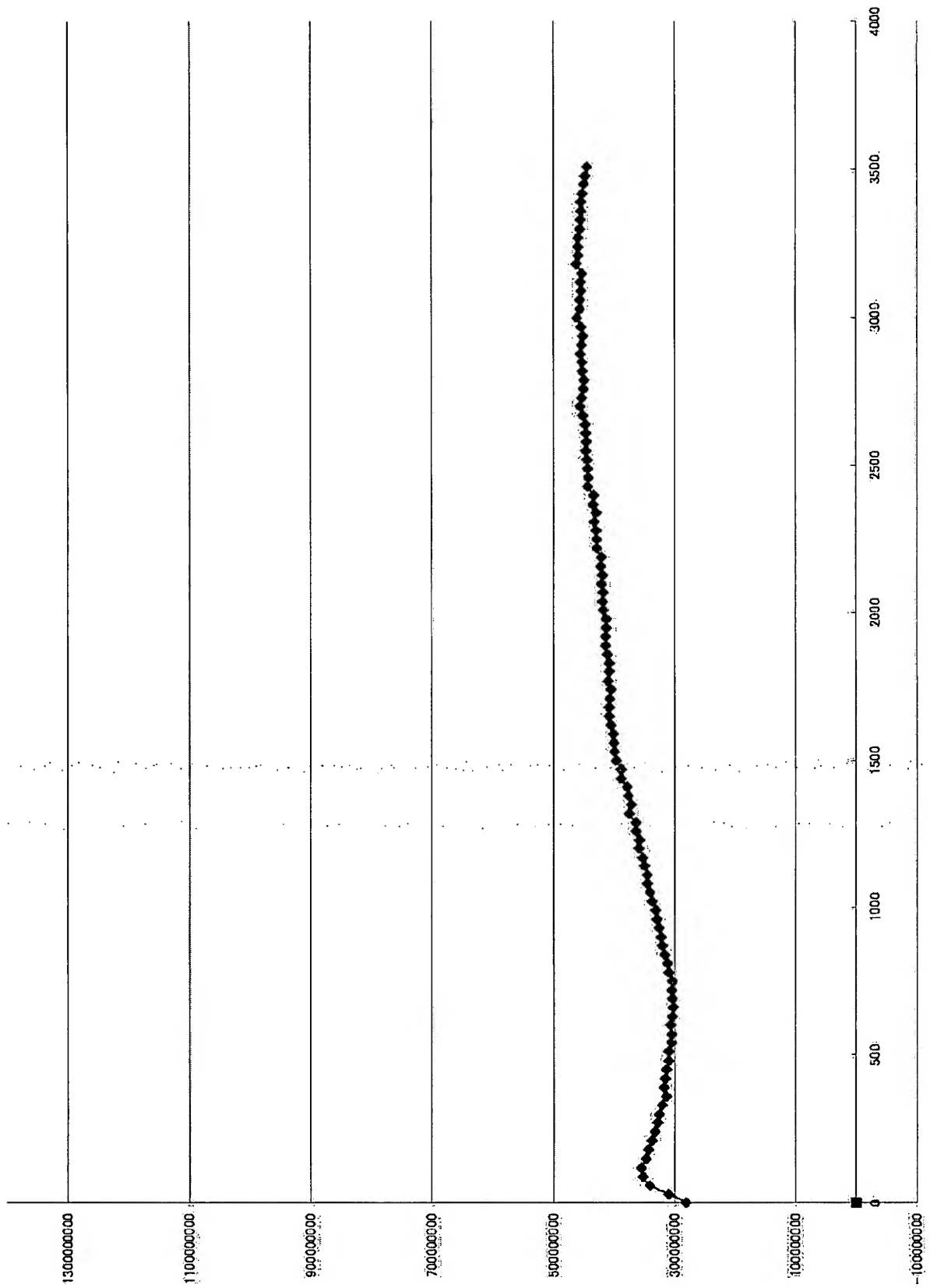
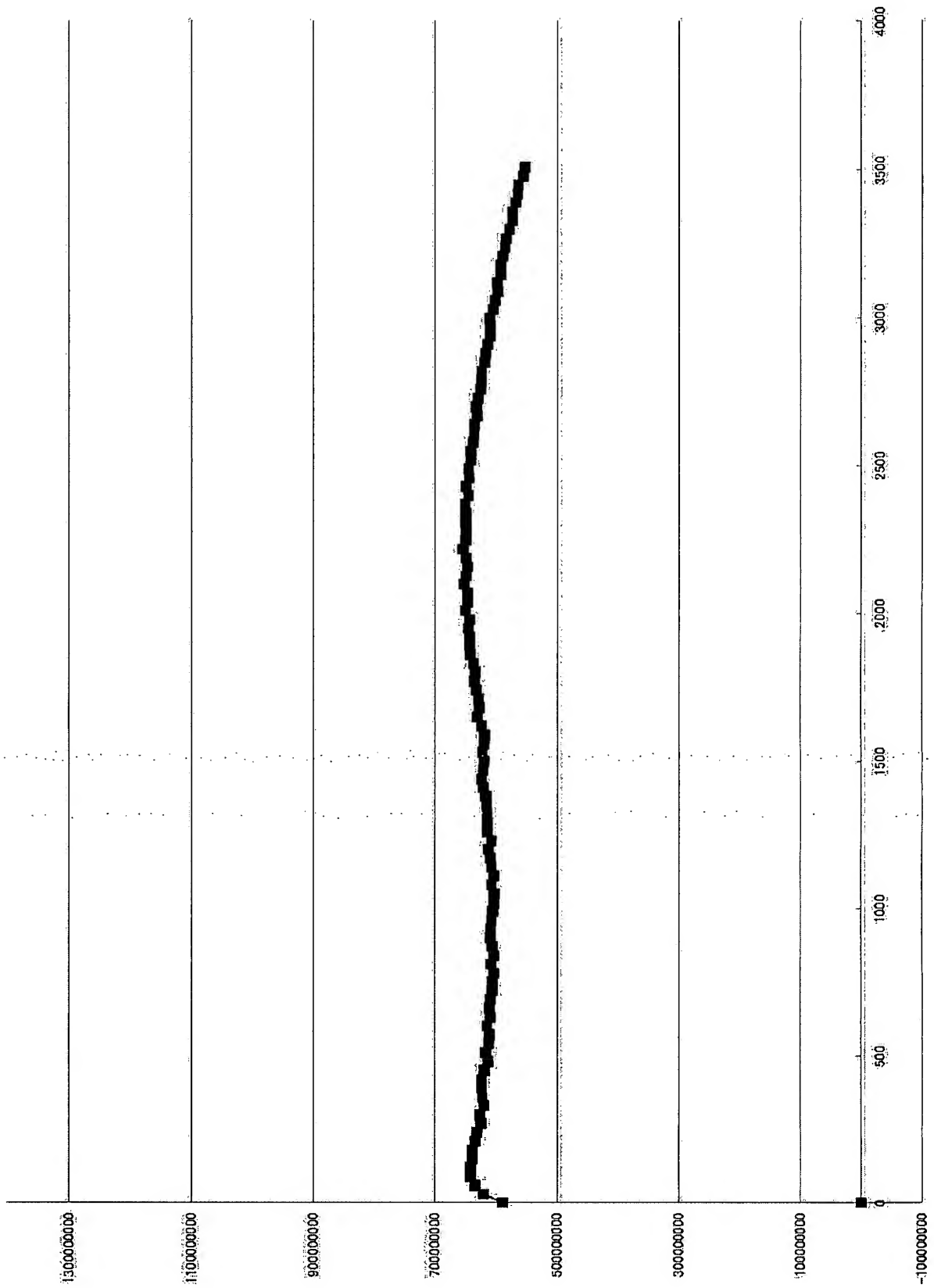


Fig. 39-46

Fig. 39-47

pp53-EGFP



none

Fig. 39-48

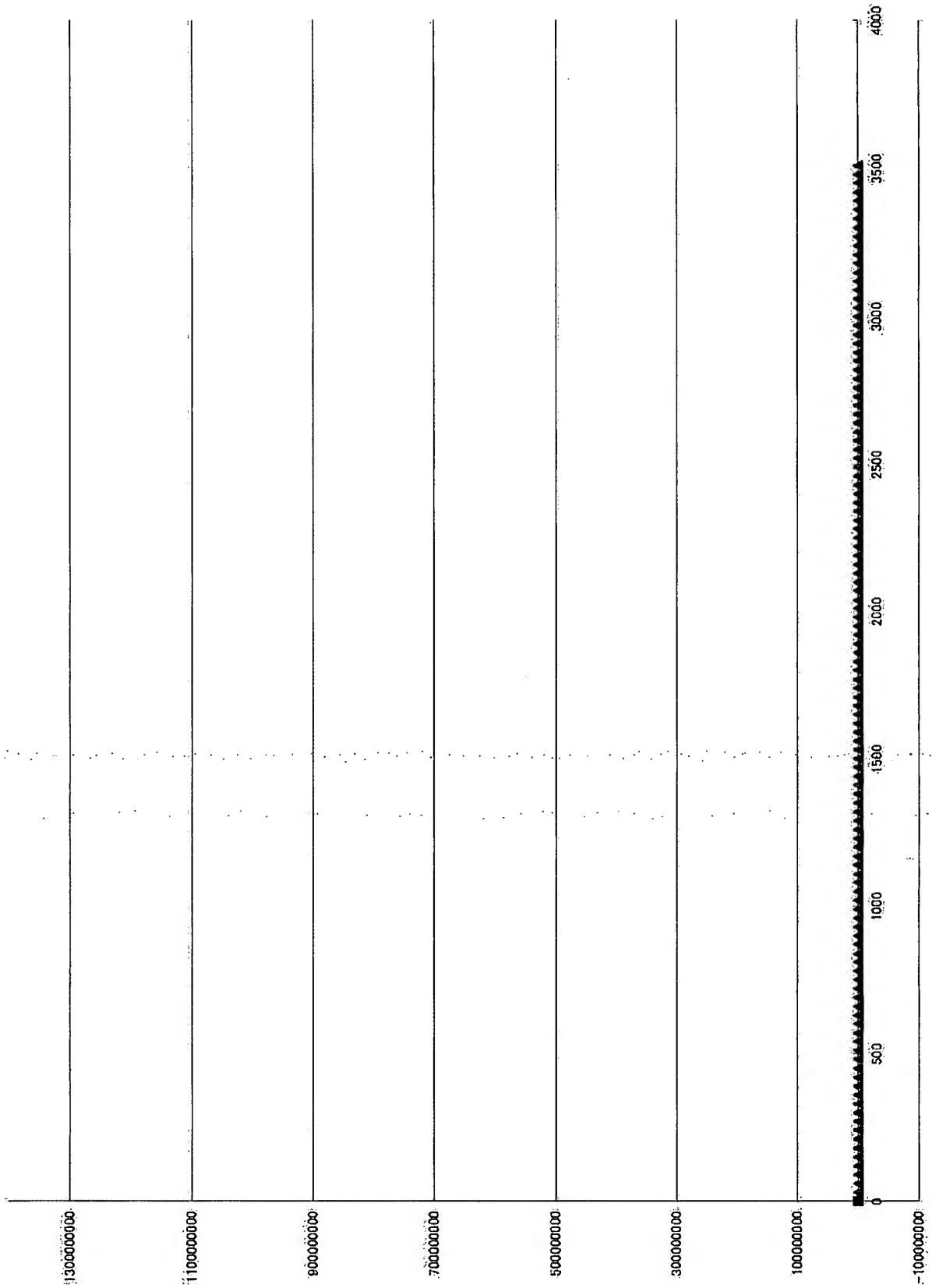


Fig. 39-49

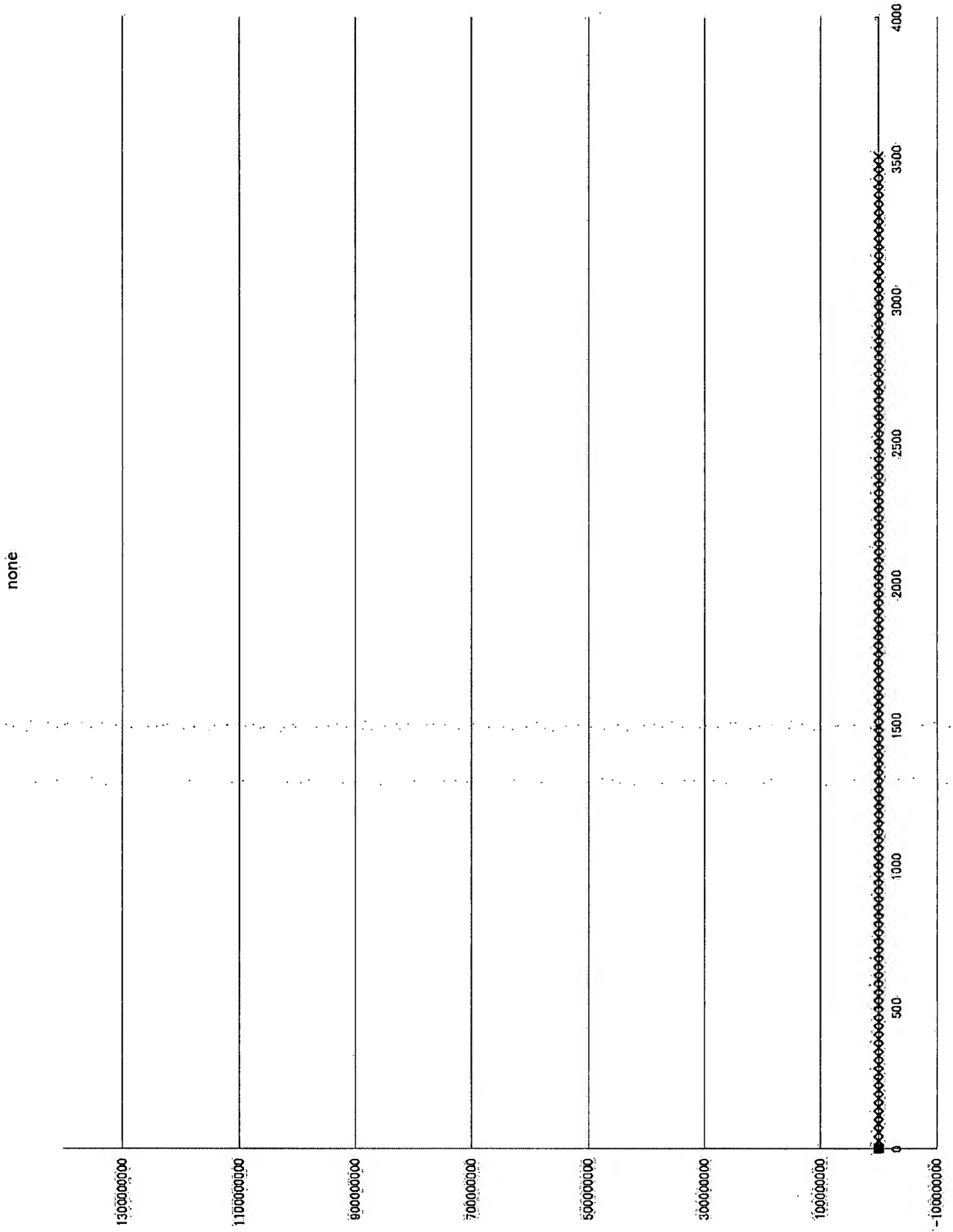


Fig. 39-50

none

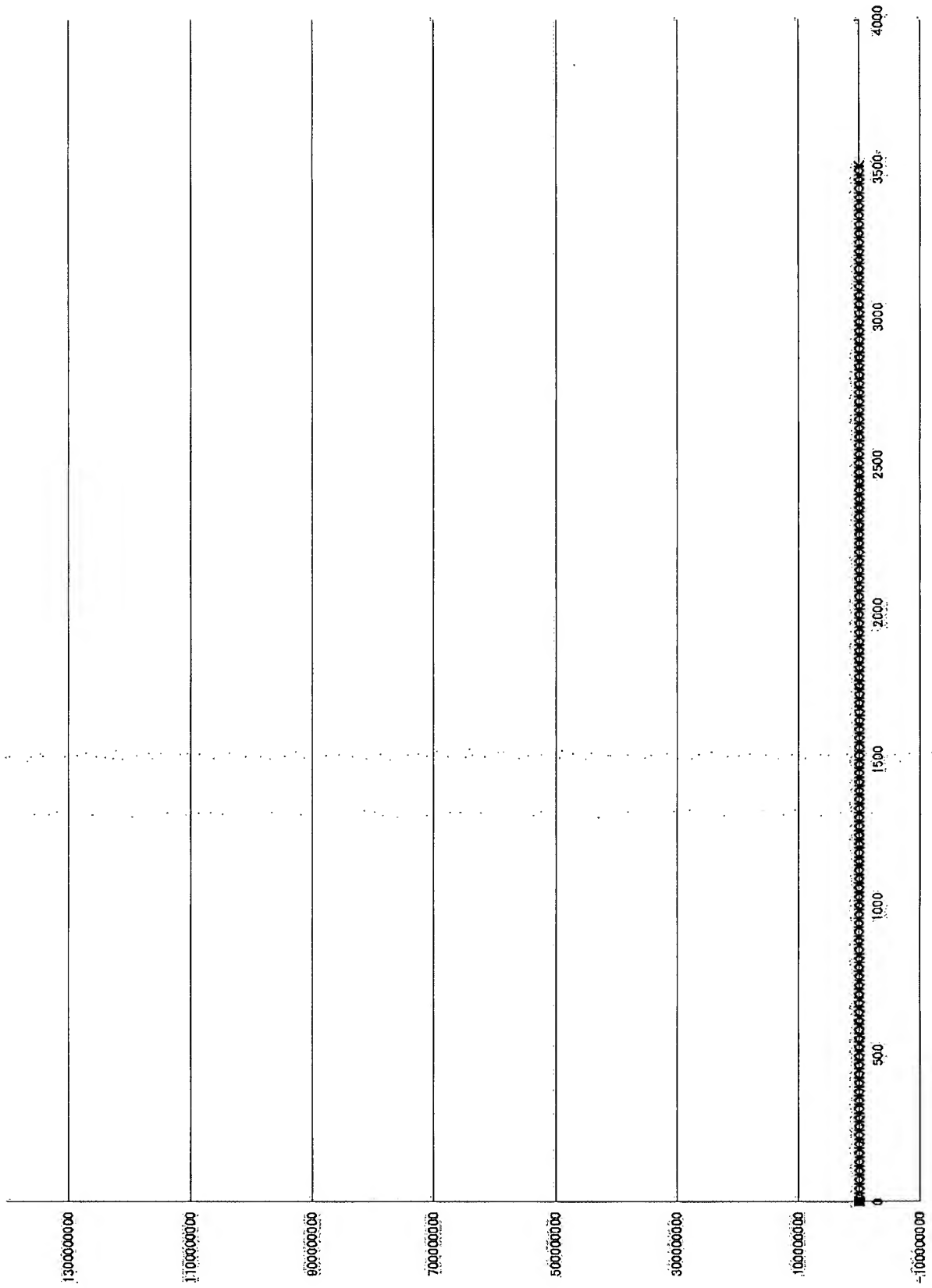


Fig. 39-51

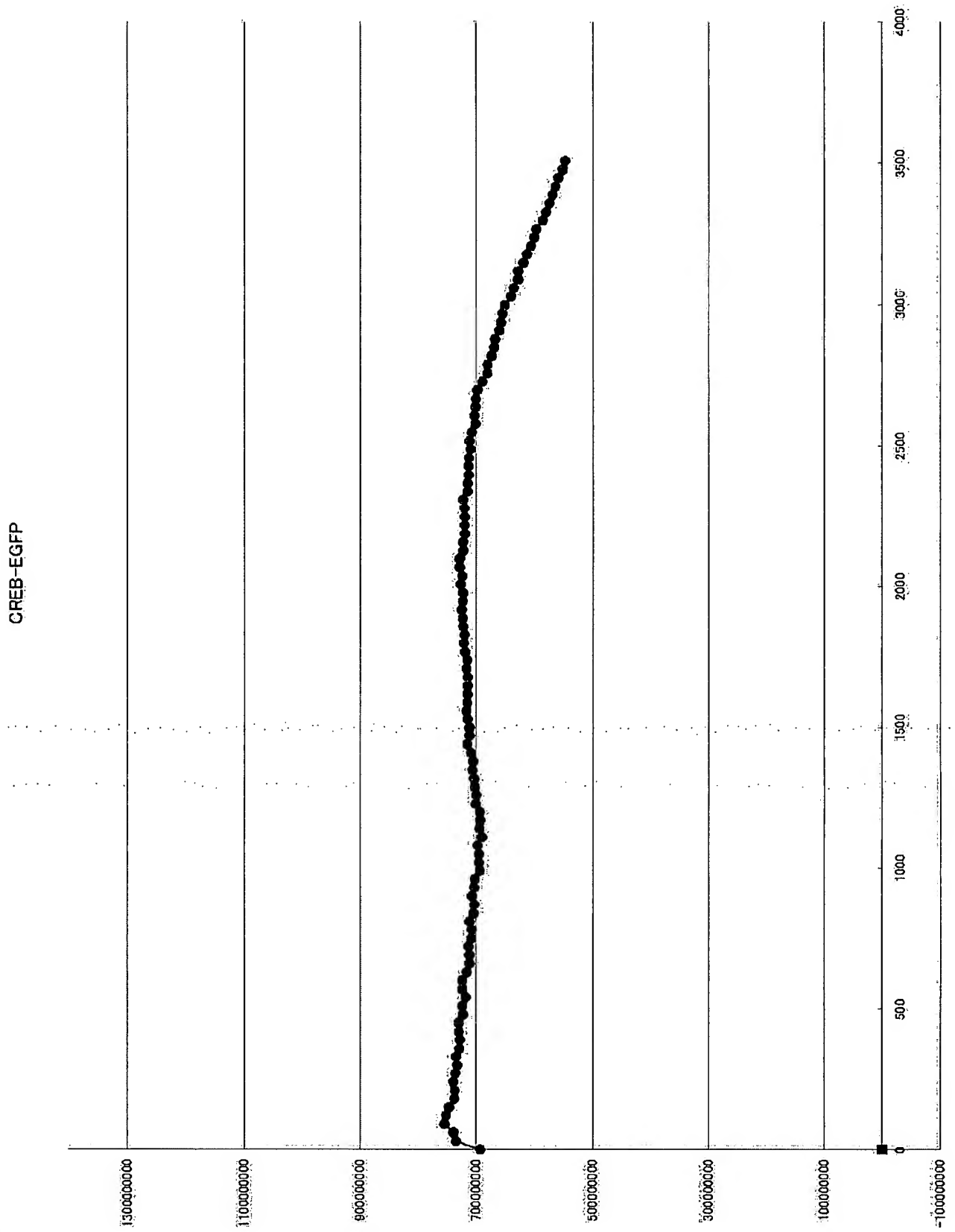


Fig. 39-52

IKB-EGFP

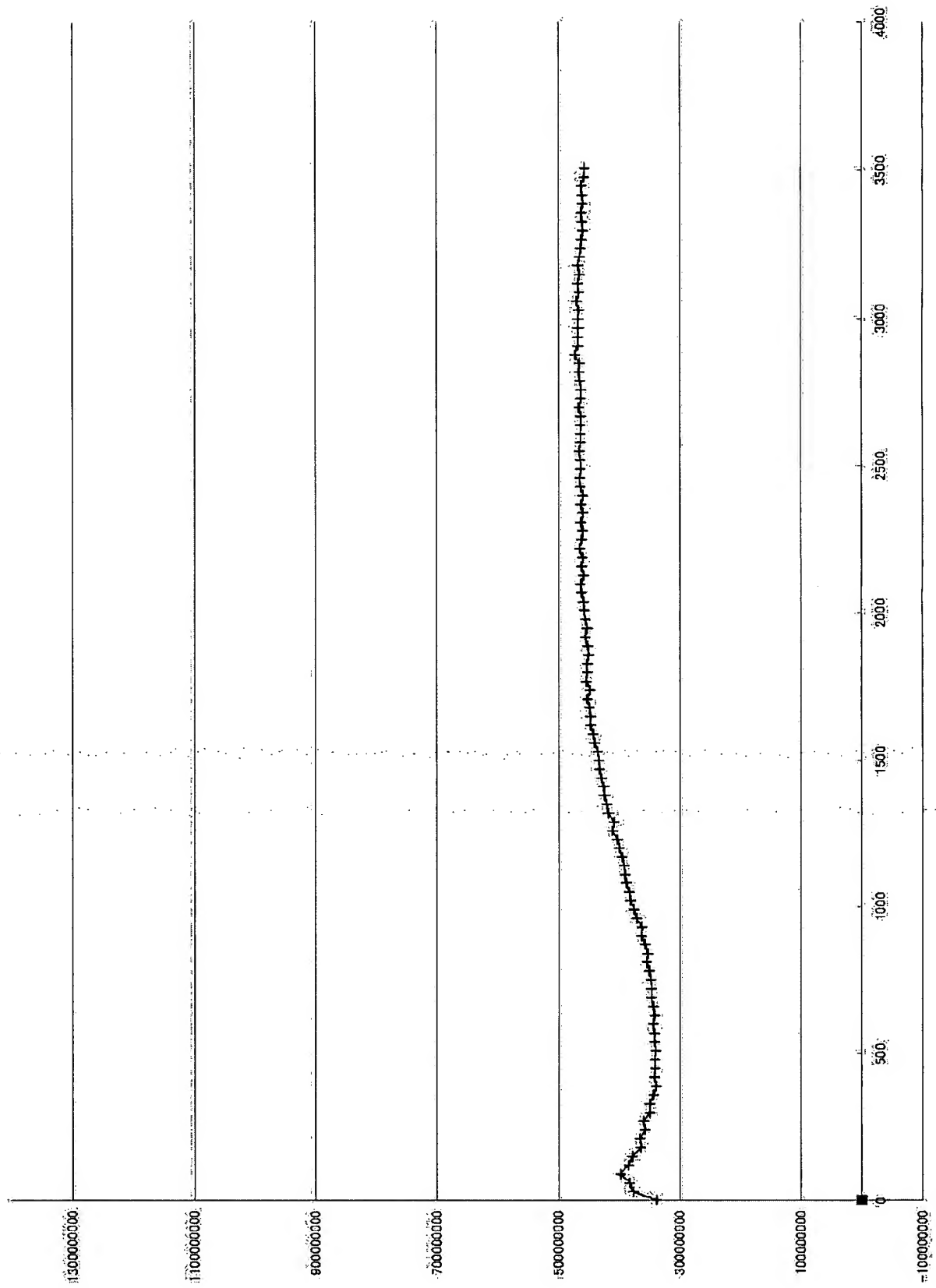


Fig. 39-53

pp53-EGFP

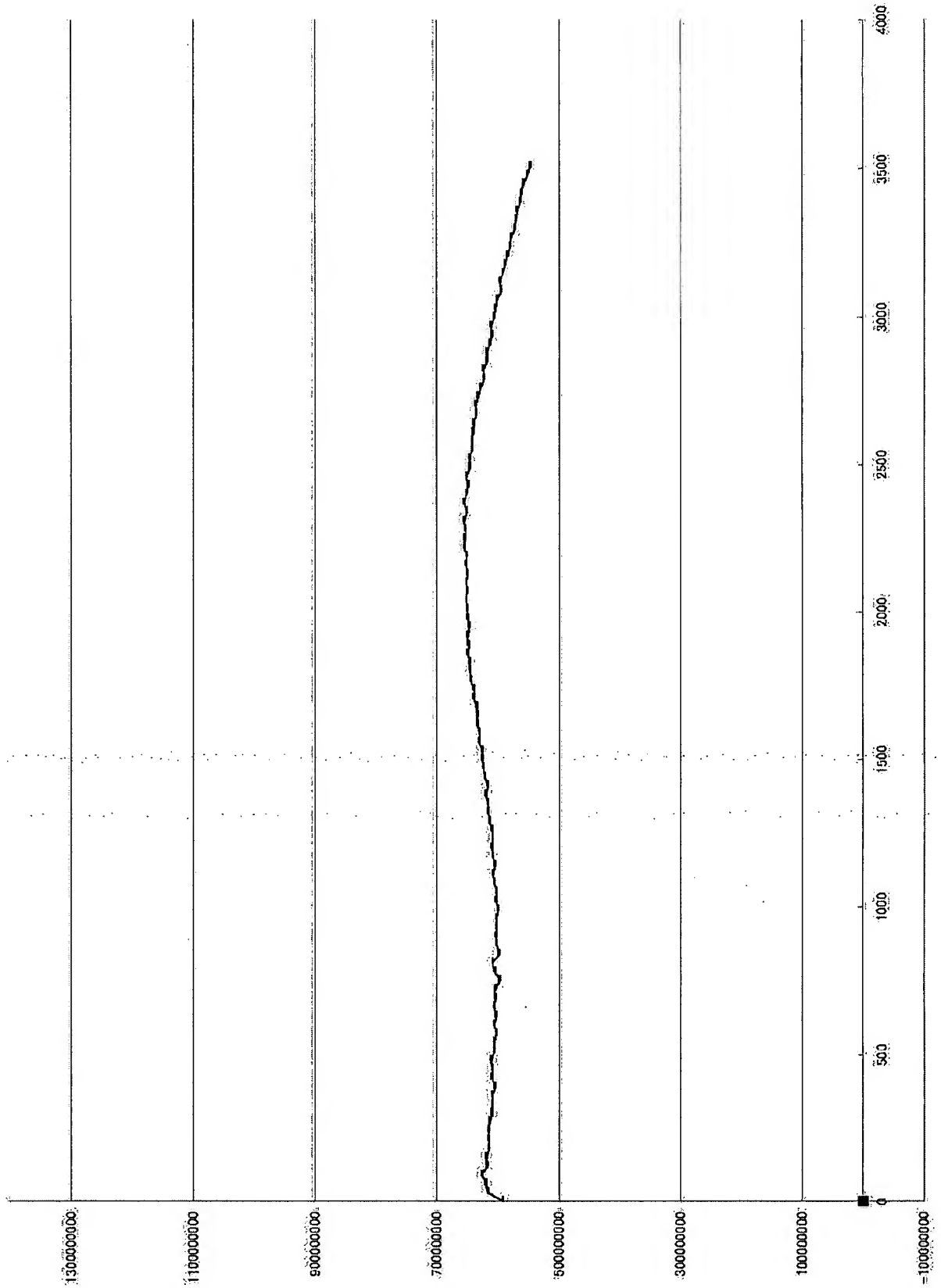


Fig. 39-54

none

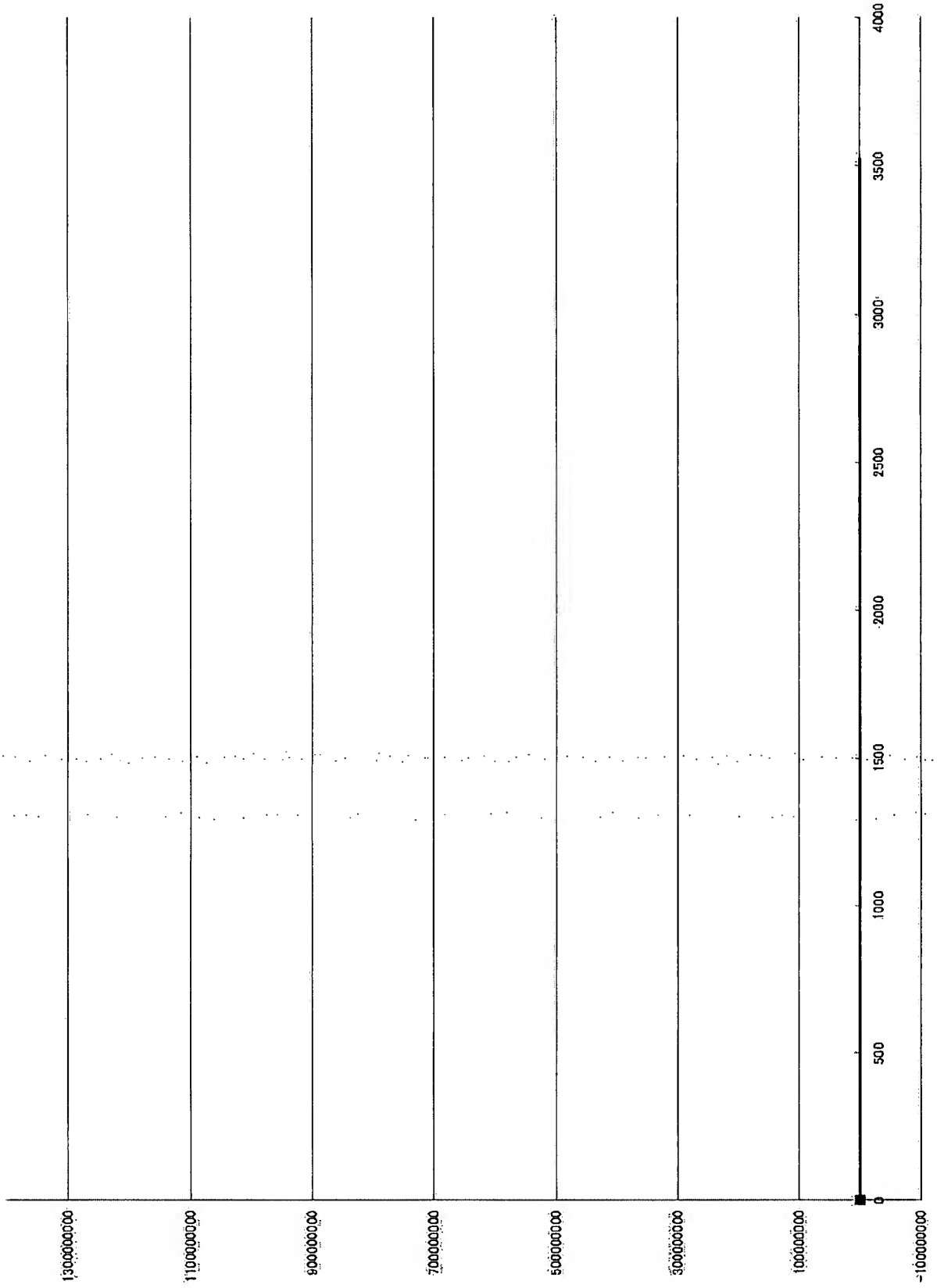


Fig. 39-55

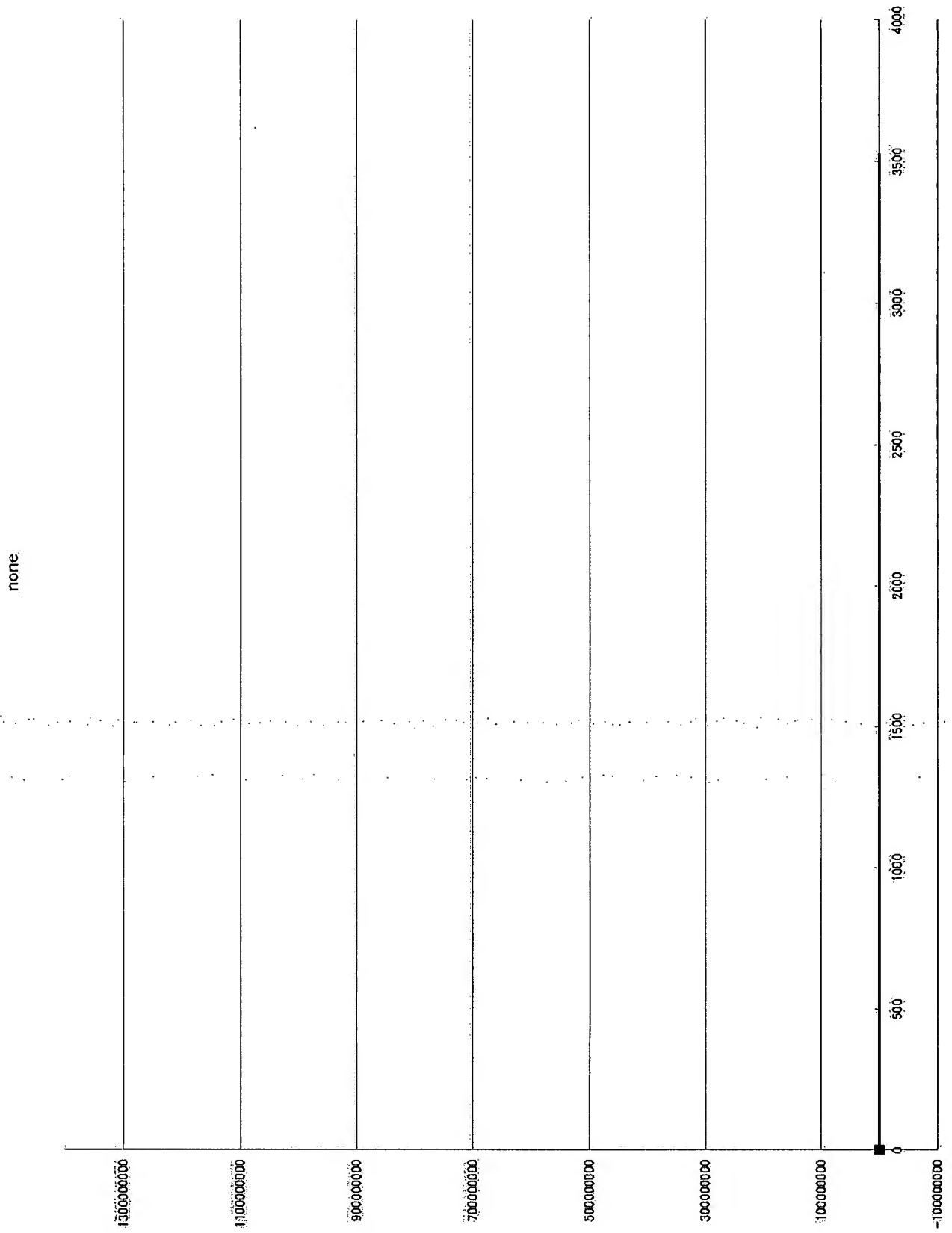


Fig. 40

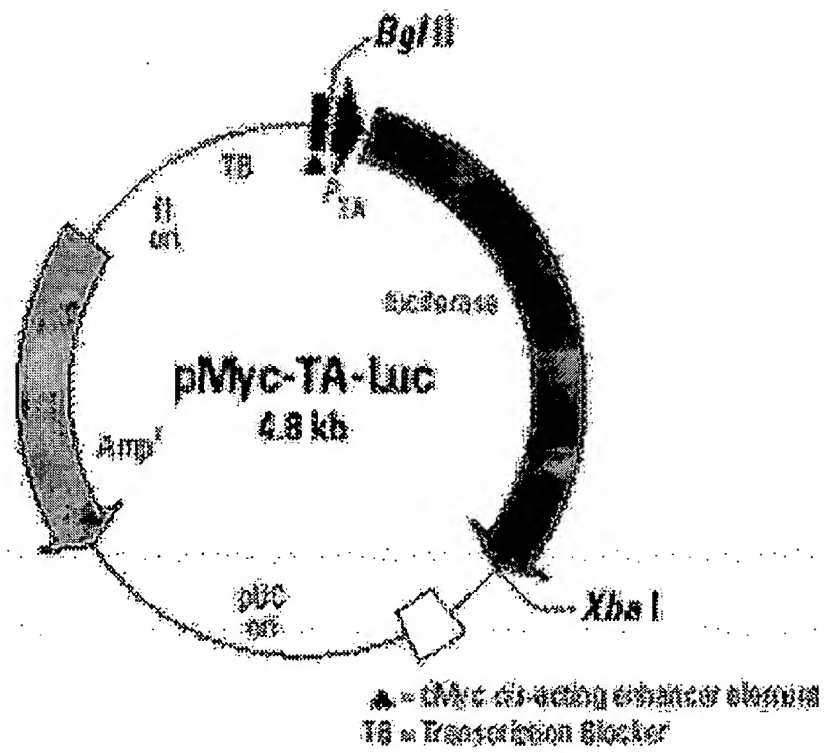


Fig. 41

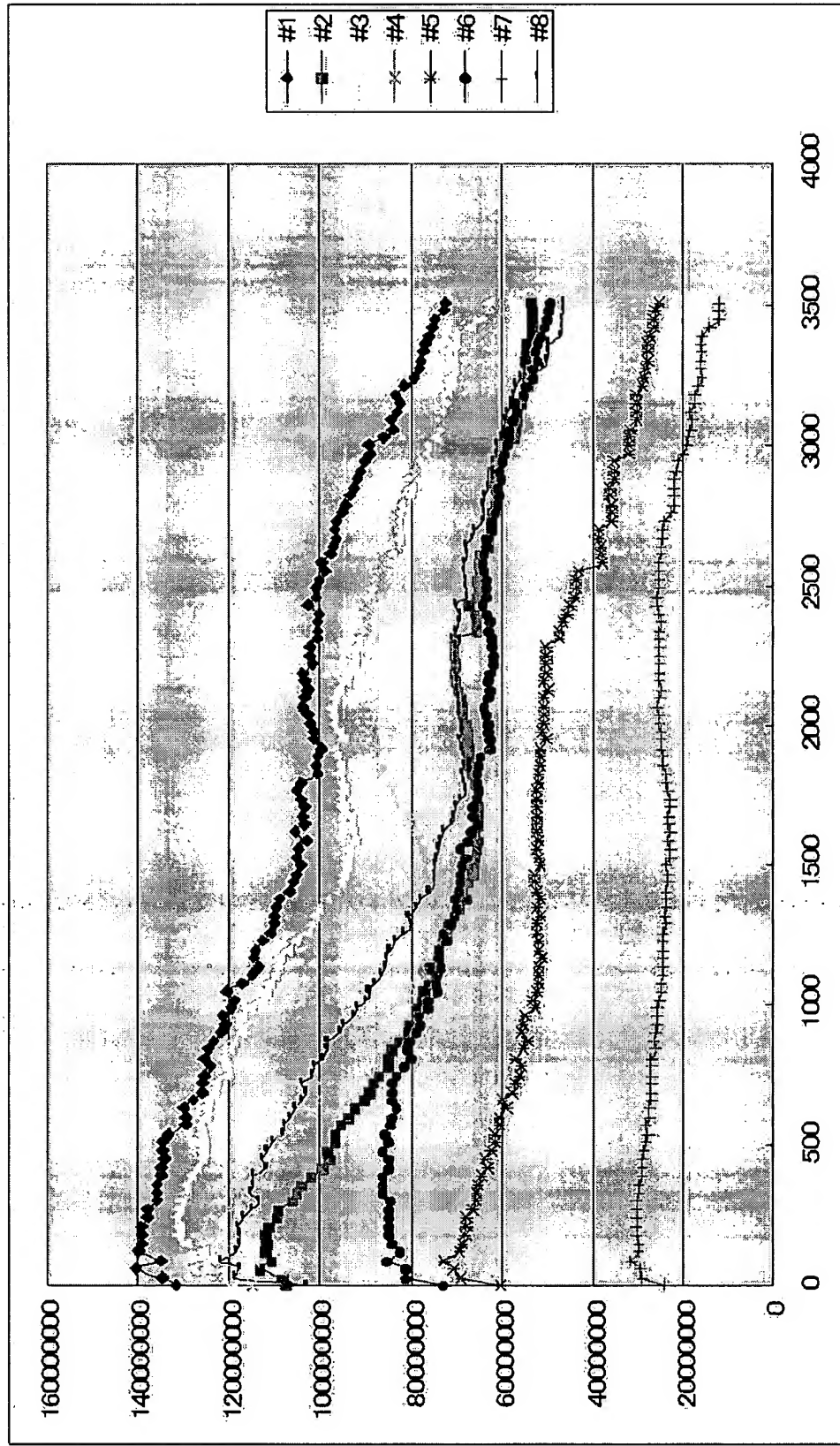


Fig. 42

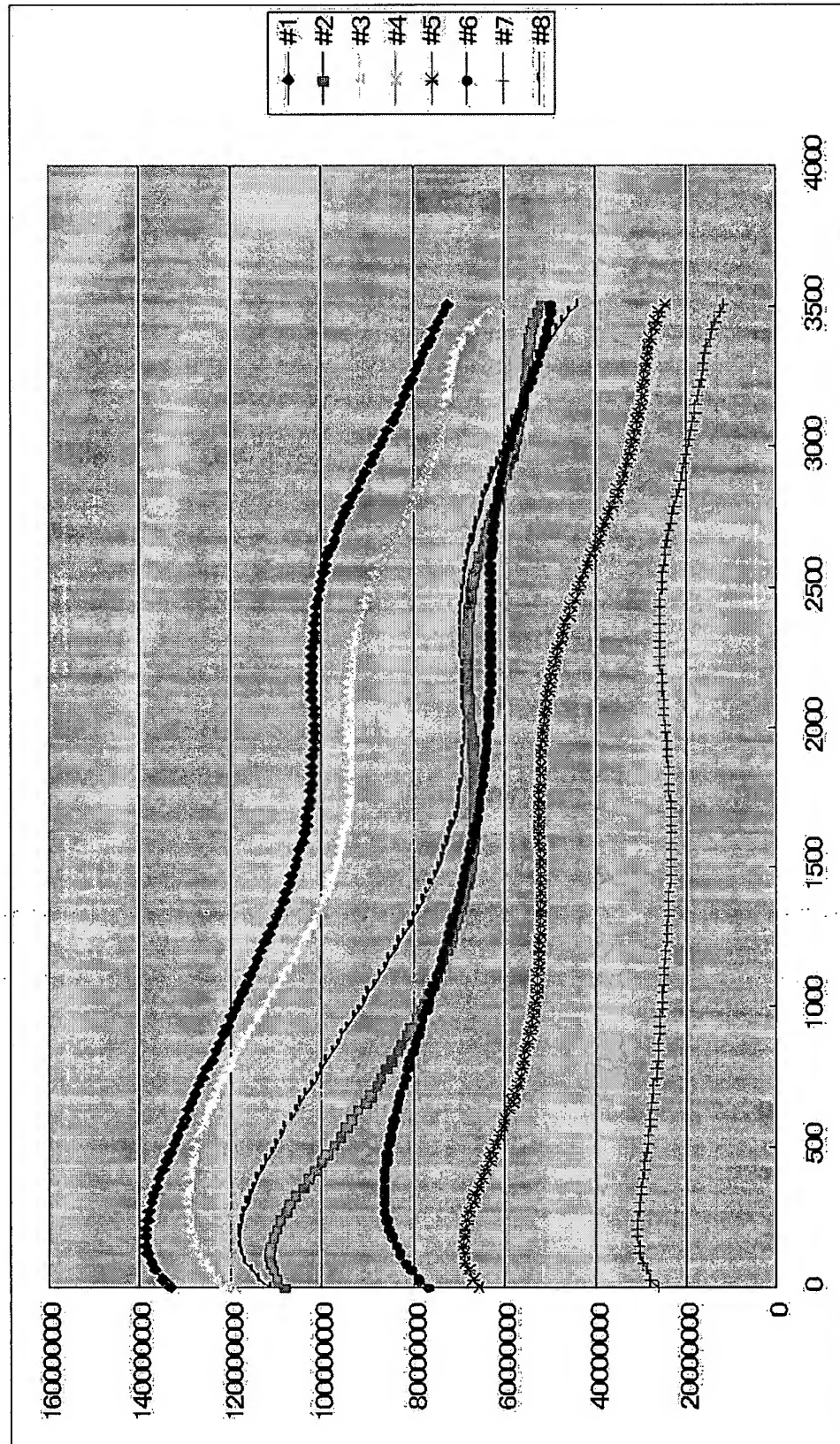


Fig. 43

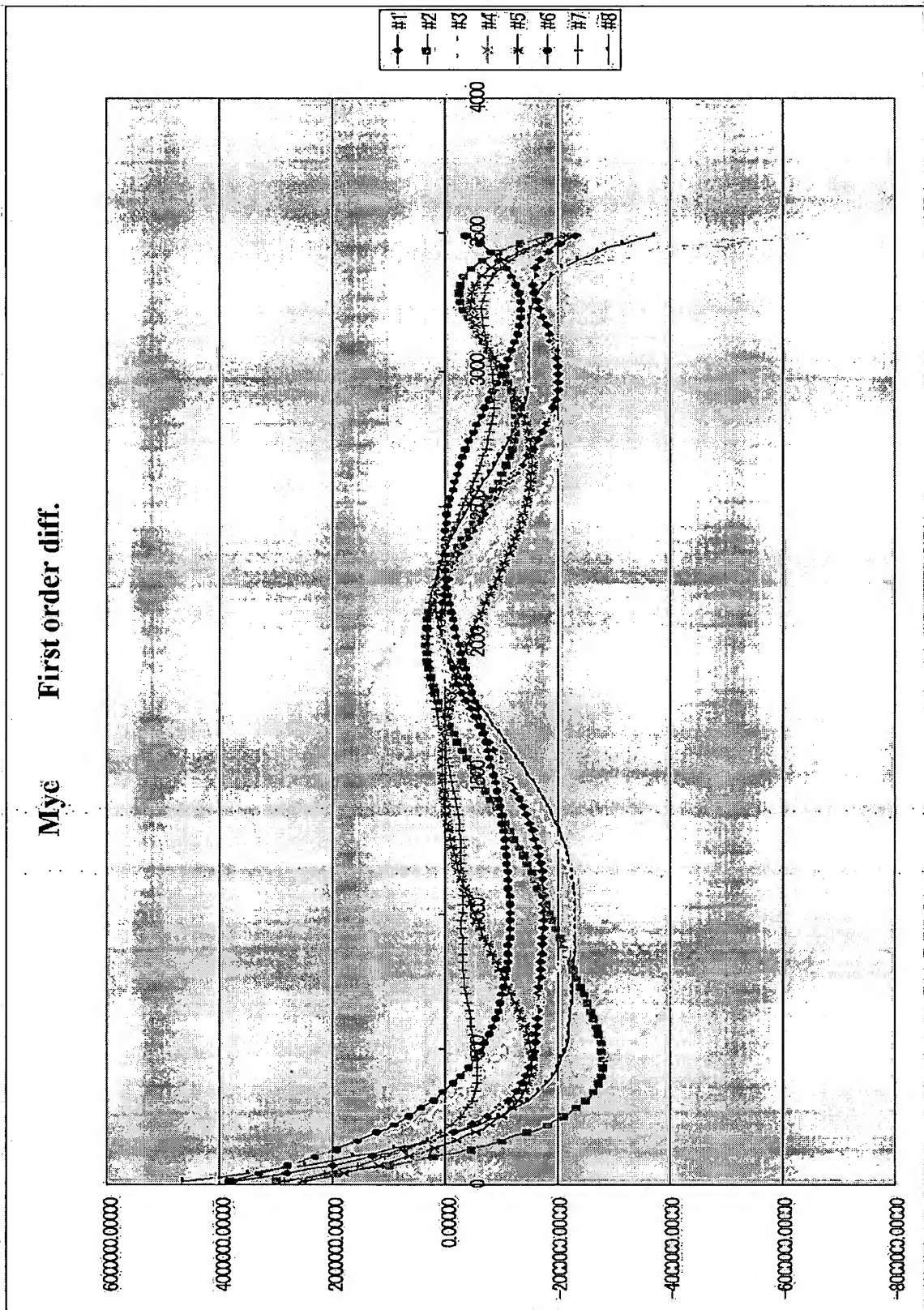
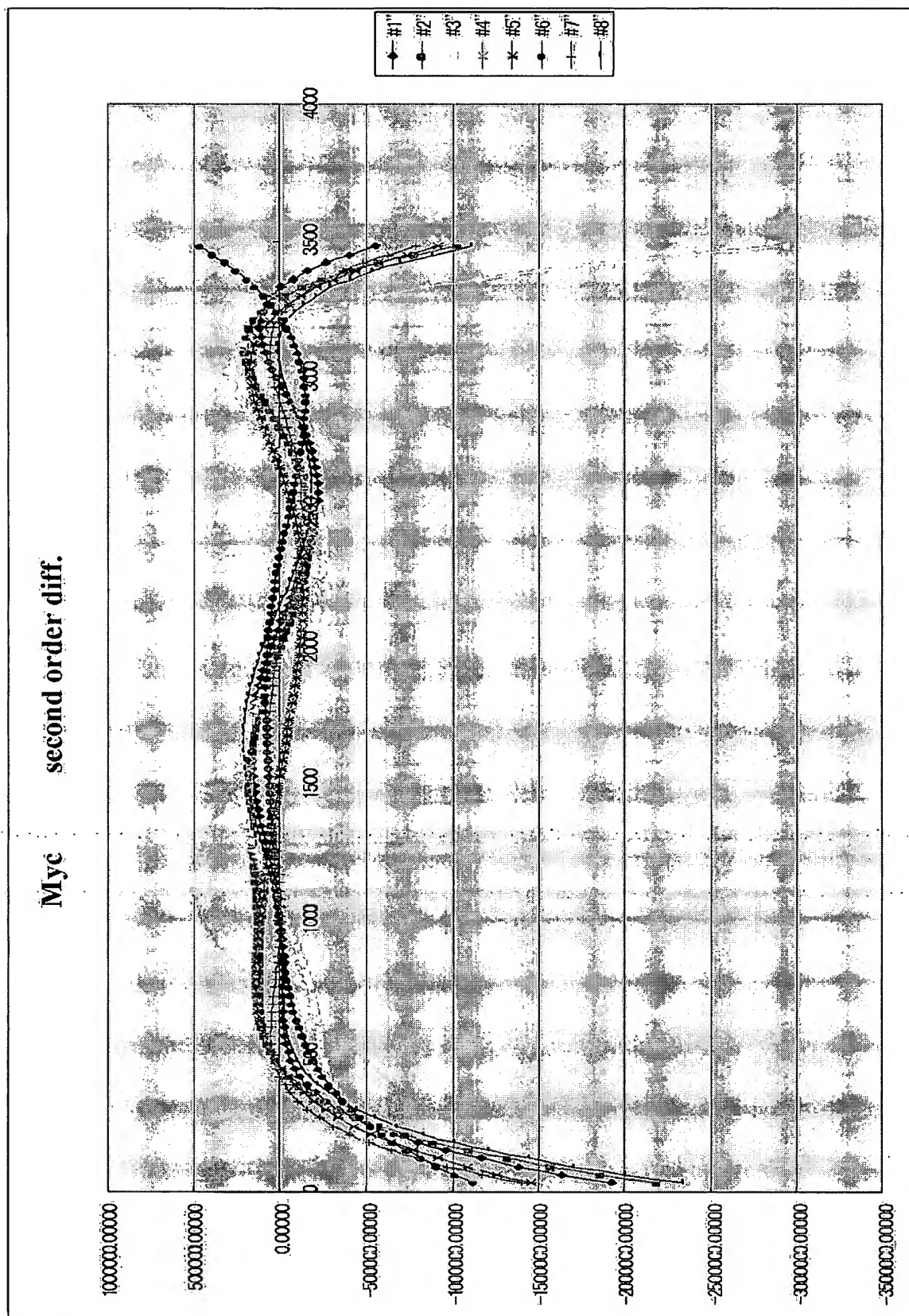


Fig. 44



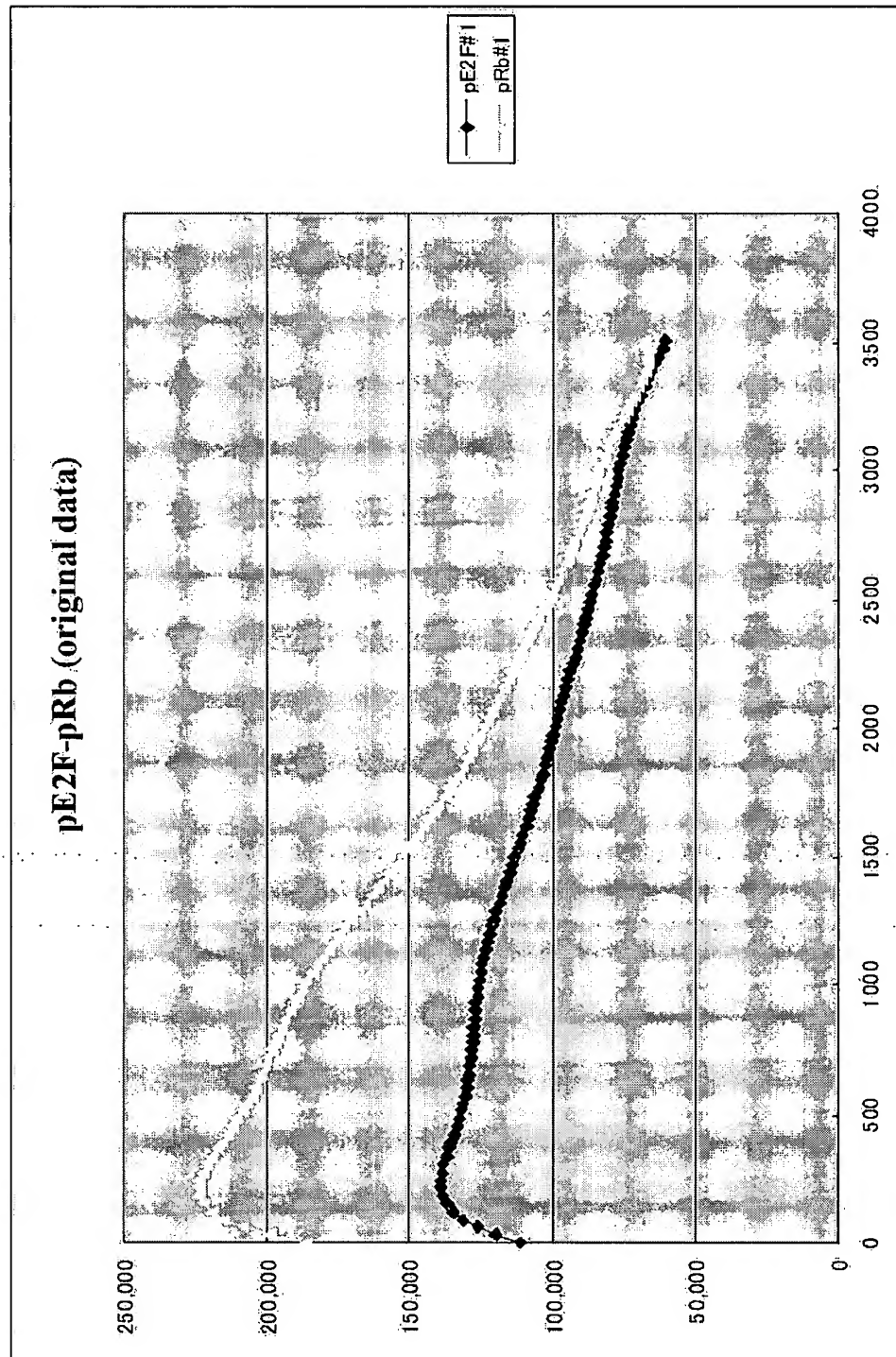


Fig. 45

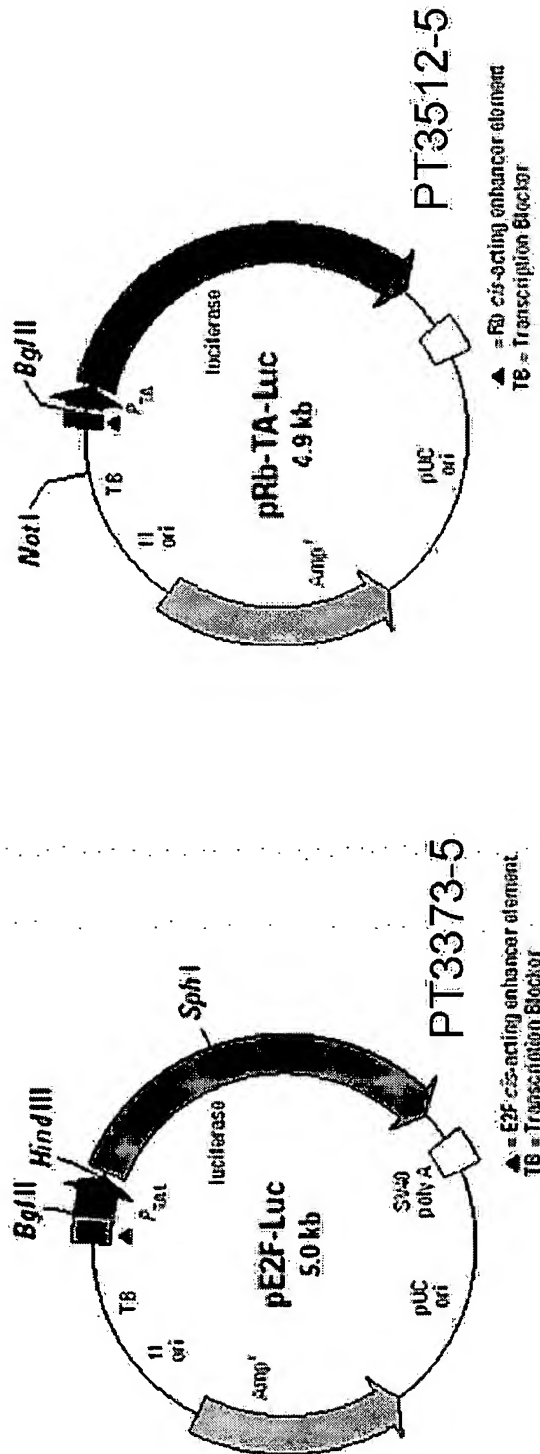


Fig. 46

Fig. 47

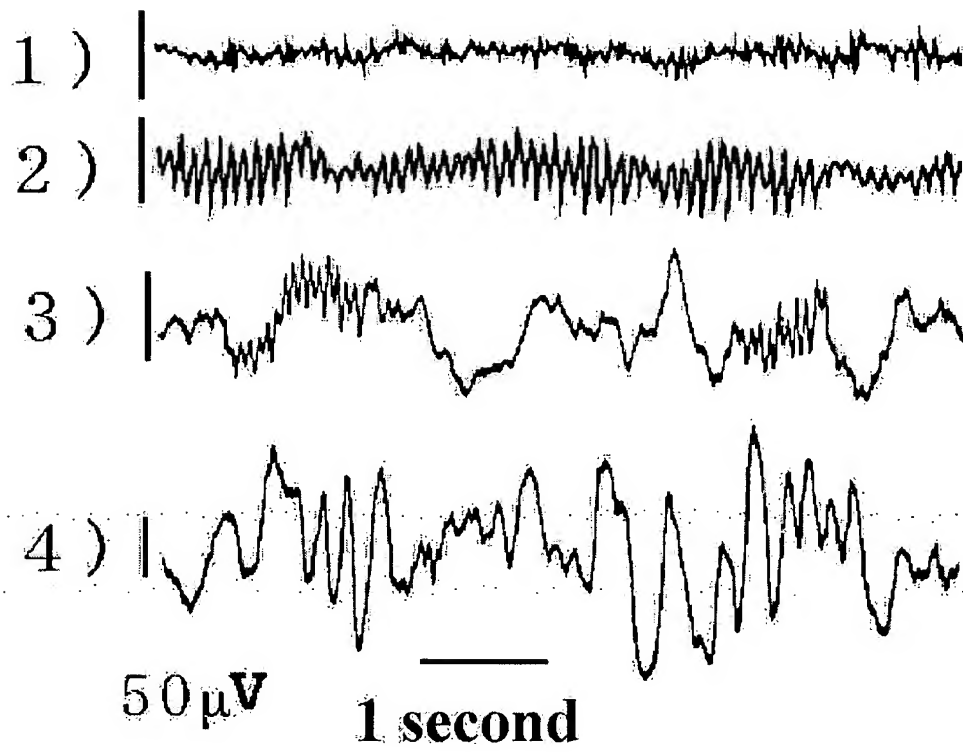


Fig. 48

